



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2010-0935; FRL- 9900-31-Region4]

Approval and Promulgation of Air Quality Implementation Plans; State of Florida; Regional Haze State Implementation Plan

AGENCY: Environmental Protection Agency (EPA).

ACTION: Final rule.

SUMMARY: EPA is finalizing a full approval of the regional haze state implementation plan (SIP) from the State of Florida, submitted through the Florida Department of Environmental Protection (FDEP), on March 19, 2010, as amended on August 31, 2010, and September 17, 2012. Florida's SIP submittal addresses regional haze for the first implementation period. Specifically, this SIP submittal addresses the requirements of the Clean Air Act (CAA or "the Act") and EPA's rules that require states to prevent any future and remedy any existing anthropogenic impairment of visibility in mandatory Class I areas (national parks and wilderness areas) caused by emissions of air pollutants from numerous sources located over a wide geographic area (also referred to as the "regional haze program"). States are required to assure reasonable progress toward the national goal of achieving natural visibility conditions in Class I areas. In this action, EPA finds that Florida's regional haze SIP meets all of the regional haze requirements of the CAA. Thus, EPA is finalizing a full approval of Florida's entire regional haze SIP.

EFFECTIVE DATE: This rule will be effective [insert 30 days from the date of publication in the Federal Register].

ADDRESSES: EPA has established a docket for this action under Docket Identification No. EPA-R04-OAR-2010-0935. All documents in the docket are listed on the www.regulations.gov web site. Although listed in the index, some information is not publicly available, i.e., Confidential Business Information or other information whose disclosure is restricted by statute. Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy form. Publicly available docket materials are available either electronically through www.regulations.gov or in hard copy at the Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW, Atlanta, Georgia 30303-8960. EPA requests that if at all possible, you contact the person listed in the **FOR FURTHER INFORMATION CONTACT** section for further information. The Regional Office's official hours of business are Monday through Friday, 8:30 to 4:30, excluding Federal holidays.

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I. What is the Background for This Final Action?

Regional haze is visibility impairment that is produced by a multitude of sources and activities which are located across a broad geographic area and emit fine particles (e.g., sulfates, nitrates, organic carbon, elemental carbon, and soil dust), and their precursors (e.g., sulfur dioxide (SO₂), nitrogen oxides (NO_x), ammonia (NH₃), and volatile organic compounds (VOC)). Fine particle precursors react in the atmosphere to form fine particulate matter (PM_{2.5}), which impairs visibility by scattering and absorbing light. Visibility impairment reduces the clarity, color, and visible distance that one can see. PM_{2.5} can also cause serious health effects and mortality in humans and contributes to environmental effects such as acid deposition and eutrophication.

In section 169A of the 1977 Amendments to the CAA, Congress created a program for protecting visibility in the nation’s national parks and wilderness areas. This section of the CAA establishes as a national goal the “prevention of any future, and the remedying of any existing,

impairment of visibility in mandatory Class I areas which impairment results from manmade air pollution.” On December 2, 1980, EPA promulgated regulations to address visibility impairment in Class I areas that is “reasonably attributable” to a single source or small group of sources, i.e., “reasonably attributable visibility impairment.” *See* 45 FR 80084. These regulations represented the first phase in addressing visibility impairment. EPA deferred action on regional haze that emanates from a variety of sources until monitoring, modeling, and scientific knowledge about the relationships between pollutants and visibility impairment were improved.

Congress added section 169B to the CAA in 1990 to address regional haze issues. EPA promulgated a rule to address regional haze on July 1, 1999 (64 FR 35713), commonly referred to as the Regional Haze Rule (RHR). The RHR revised the existing visibility regulations by adding provisions addressing regional haze impairment and establishing a comprehensive visibility protection program for Class I areas. The requirements for regional haze, found at 40 CFR 51.308 and 51.309, are included in EPA’s visibility protection regulations at 40 CFR 51.300-309. The requirement to submit a regional haze SIP applies to all 50 states, the District of Columbia, and the Virgin Islands. 40 CFR 51.308(b) required states to submit the first implementation plan addressing regional haze visibility impairment no later than December 17, 2007. Regional haze SIPs must assure reasonable progress towards the national goal of achieving natural visibility conditions in Federal Class I areas. These implementation plans must also give specific attention to certain stationary sources that were in existence on August 7, 1977, but were not in operation before August 7, 1962, and require these sources, where appropriate, to install Best Available Retrofit Technology (BART) controls for the purpose of eliminating or reducing visibility impairment.

On March 19, 2010, and August 31, 2010, FDEP submitted and subsequently amended Florida's SIP to address regional haze in Florida and other states' Class I areas. On May 25, 2012, EPA published an action proposing a limited approval of Florida's regional haze SIP to address the first implementation period for regional haze.¹ See 77 FR 31240. EPA's May 25, 2012, proposed rulemaking covered Florida's March 19, 2010, SIP submittal, as amended on August 31, 2010, as well as the State's April 13, 2012, draft amendment to the regional haze SIP submission. In a July 31, 2012, draft amendment to the regional haze SIP submission, Florida addressed the 18 reasonable progress units and 11 facilities with BART-eligible electric generating units (EGUs) subject to EPA's Clean Air Interstate Rule (CAIR²) (a total of 20 EGUs) that were not covered by Florida's April 13, 2012, draft amendment to the regional haze SIP submission. It also amended the SIP submission to remove Florida's reliance on CAIR to satisfy BART and reasonable progress requirements for the State's affected EGUs.

Florida's September 17, 2012, final amendment to the regional haze SIP submission consolidated its draft April 13, 2012, and draft July 31, 2012, amendments to the regional haze SIP submission into a single package. On October 15, 2012, and on May 2, 2013, FDEP submitted supplemental information and documentation for Progress Energy's Crystal River facility. On November 29, 2012 (77 FR 71111), EPA finalized a full approval of the BART determinations addressed in the Agency's May 25, 2012, proposed rulemaking action. These BART determinations were submitted to EPA for parallel processing on April 13, 2012, in a

¹ In a separate action published on December 30, 2011 (76 FR 82219), EPA proposed a limited disapproval of the Florida regional haze SIP, and on June 7, 2012 (77 FR 33642), EPA finalized a limited disapproval of the regional haze SIPs for several states, but deferred final action on the Florida regional haze SIP.

² On March 10, 2005, EPA issued CAIR, a rule which covers 27 eastern states and the District of Columbia. The rule uses a cap and trade system to reduce SO₂ and NO_x from power plant emissions. For more information, go to: <http://www.epa.gov/airmarkets/resource/cair-resource.html>.

draft amendment to the regional haze SIP submission and submitted in final form on September 17, 2012.

On December 10, 2012 (77 FR 73369), EPA proposed several actions related to regional haze requirements for Florida. First, EPA proposed to approve certain BART and reasonable progress determinations included in Florida's September 17, 2012, amendment to the regional haze SIP submission. Second, EPA proposed to find that the September 17, 2012, amendment to Florida's regional haze SIP submission corrects the deficiencies that led to the aforementioned proposed limited approval and limited disapproval actions. Third, EPA proposed to withdraw the previously proposed limited disapproval of Florida's entire regional haze SIP, and alternatively proposed full approval of the entire regional haze SIP.

II. What Action is EPA Taking?

EPA is now finalizing full approval of all remaining portions of the Florida regional haze SIP as proposed on May 25, 2012, and December 10, 2012, including the remaining BART and reasonable progress determinations in Florida's September 17, 2012, amendment to the regional haze SIP submission (as supplemented on October 15, 2012, and May 2, 2013)³ not previously addressed in EPA's November 29, 2012, final action.⁴ EPA finds that Florida's September 17,

³ On October 15, 2012, and on May 2, 2013, FDEP submitted supplemental information and documentation for Progress Energy's Crystal River facility. Additionally, FDEP submitted a letter to EPA dated July 30, 2013, in which it committed to provide EPA with a regional haze SIP revision no later than March 19, 2015, the deadline for the State's five-year regional haze periodic progress report, that will include a NOx BART emissions limit for Unit 1 reflecting best operating practices for good combustion.

⁴ Specifically, the BART determinations addressed by the November 29, 2012, action were: Tampa Electric Company-Big Bend Station (Units 1, 2, 3); City of Tallahassee-Purdom Generating Station (Unit 7); Florida Power & Light (FPL)-Port Everglades Power Plant (Units 3, 4); CEMEX; White Springs Agricultural Chemical-SR/SC Complex; City of Gainesville-Deerhaven Generating Station (Unit 3); City of Vero Beach-City of Vero Beach Municipal Utilities (Units 2, 3, 4); FPL -Putnam Power Plant (Units 3, 4, 5, 6, 7, 8, 9, 10); Lake Worth Utilities-Tom G. Smith (Units 6, 9); City of Tallahassee-Arvah B. Hopkins Generating Station (Unit 4); FPL -Riviera Power Plant (Unit 4); Florida Power Corp.-Bartow Plant (Unit 3); Lakeland Electric-Charles Larsen Memorial Power Plant (Unit 4); Ft. Pierce Utilities Authority-H D King Power Plant (Units 7, 8); FPL -Cape Canaveral Power Plant (Units 1, 2);

2012, amendment to the regional haze SIP submission (as supplemented on October 15, 2012, and May 2, 2013): (1) replaces reliance on CAIR to satisfy the BART and reasonable progress requirements for its affected EGUs with case-by-case BART and reasonable progress control analyses; and (2) corrects the deficiencies that led to the December 30, 2011, proposed limited disapproval and the May 25, 2012, proposed limited approval of the State's regional haze SIP. Consequently, EPA finds that the regional haze SIP as a whole now meets the regional haze requirements of the CAA.

EPA received adverse comments on the May 25, 2012, proposed limited approval of Florida's regional haze SIP and on the December 10, 2012, proposed approval of certain BART and reasonable progress determinations. *See* Section III of this rulemaking for a summary of the comments received on EPA's May 25, 2012, and December 10, 2012, proposed actions and the Agency's responses to these comments. Detailed background information and EPA's rationale for the proposed actions are provided in EPA's May 25, 2012, and December 10, 2012, proposed rulemakings. *See* 77 FR 31240 and 77 FR 73369.

III. What is EPA's Response to Comments Received on These Actions?

EPA received two sets of comments on its May 25, 2012, rulemaking proposing a limited approval of Florida's regional haze SIP submittals and seven sets of comments on its December 10, 2012, proposed approval described above. Specifically, the comments on the May 25, 2012, proposed rulemaking were received from the Sierra Club and National Parks Conservation

Atlantic Sugar Association-Atlantic Sugar Mill; Buckeye Florida-Perry; ExxonMobil Production-St. Regis Treating Facility and Jay Gas Plant; IFF Chemical Holdings, Inc.; IMC Phosphates Company-South Pierce; International Paper Company- Pensacola Mill; Mosaic-Bartow; Mosaic-Green Bay Plant; Osceola Farms; Sugar Cane Growers Co-Op; U.S. Sugar Corp.-Clewiston Mill and Refinery; Solutia Inc., Sterling Fibers, Inc.; U.S. Sugar Corp.-Bryant Mill; IMC Phosphates Company-Port Sutton Terminal; Georgia Pacific-Palatka; Smurfit-Stone-Fernandina Beach; Smurfit-Stone-Panama City; Mosaic-New Wales; Mosaic-Riverview; and CF Industries.

Association, collectively, and from the Florida Electric Power Coordinating Group, Inc.- Environment Committee. One comment related to BART was addressed in the Agency's November 29, 2012, final rulemaking. The remaining comments are addressed in this action. The seven sets of comments relating to the December 10, 2012, proposed rulemaking were received from Sierra Club, EarthJustice, and the National Parks Conservation Association, collectively; National Park Service (NPS); Florida Electric Power Coordinating Group, Inc. - Environment Committee; FPL Company; Progress Energy; Utility Air Regulatory Group; and numerous individual members of the Sierra Club. The complete comments provided by all of the aforementioned entities (hereinafter referred to as "the Commenter") are provided in the docket for today's final action (Docket Identification No. EPA-R04-OAR-2010-0935). A summary of the comments and EPA's responses are provided below.

A. Response to Comments on the May 25, 2012, Proposal

Comment 1: The Commenter concludes that EPA cannot approve Florida's reasonable progress demonstration or long-term strategy (LTS) at this time because "relevant portions of the SIP are incomplete in important regards" and because the components of the SIP are "interdependent" (i.e., regional haze SIPs are "comprehensive documents which fully address haze through linked reasonable progress goals, an effective long-term strategy, BART requirements for appropriate sources, and robust monitoring, amongst other requirements"). The Commenter believes that EPA cannot approve the reasonable progress demonstration or LTS "because the shift from CAIR to CSAPR [Cross State Air Pollution Rule] has fundamentally altered the SIP, and has required Florida to reanalyze significant portions of its SIP." The Commenter states that until

such an analysis is complete, the SIP is missing critically important components. According to the Commenter, EPA cannot lawfully or rationally approve SIP provisions that rely on future revisions that Florida has not yet adopted or submitted to EPA or rely on CAIR to meet specific regional haze requirements when EPA has already “taken action to disapprove that exact action.” Without a complete reasonable progress demonstration, LTS, and supporting analyses, the Commenter believes that EPA approval of such SIP sections would be arbitrary and contrary to law.

Response 1: EPA disagrees with the Commenter’s conclusions and is approving the reasonable progress demonstrations, reasonable progress goals (RPGs), and LTS set forth in Florida’s regional haze SIP. The State has submitted a complete regional haze SIP that satisfies all CAA requirements, and EPA is taking final action today to approve Florida’s entire regional haze SIP. When combined with EPA’s November 29, 2012, final rulemaking approving several BART determinations, there are no outstanding regional haze SIP elements requiring action.

Regarding the comments on the relationship between CAIR and the regional haze SIP, Florida set its RPGs based on modeled projections of future conditions that were developed using the best available information at the time the modeling analysis was performed. Given the requirement in 40 CFR 51.308(d)(1)(vi) that states must take into account the visibility improvement that is expected to result from the implementation of other CAA requirements, Florida set its RPGs based, in part, on the emissions reductions expected to be achieved by CAIR and other measures being implemented across the southeast region as modeled for Florida by the Visibility Improvement State and Tribal Association of the Southeast (VISTAS).⁵ Although

⁵ The VISTAS Regional Planning Organization (RPO) is a collaborative effort of state governments, tribal governments, and various Federal agencies established to initiate and coordinate activities associated with the

Florida no longer relies on CAIR to satisfy regional haze requirements for any sources within the State, the underlying emissions inventories and projections of reductions from upwind states continue to include assumptions based on the implementation of CAIR. As CAIR has been remanded by the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit or Court), some of the assumptions underlying the development of this element of the RPGs may change. EPA has determined that this reliance on CAIR in upwind states in the underlying analysis does not require EPA to withhold full approval of Florida's regional haze SIP. The 2008 remand of CAIR was followed by a 2012 decision in *EME Homer City Generation, L.P. v. EPA* (hereafter referred to as "*EME Homer City*"), 696 F.3d 7 (D.C. Cir. 2012), *cert. granted* 570 U.S. (June 24, 2013) (No. 12-1182), to vacate CSAPR and keep CAIR in place pending the promulgation of a valid replacement rule. In this unique circumstance, EPA believes that full approval of the SIP submission is appropriate. To the extent that Florida is relying on emissions reductions associated with the implementation of CAIR in other states in its regional haze SIP, the recent directive from the D.C. Circuit in *EME Homer City* ensures that the reductions associated with CAIR will be sufficiently permanent and enforceable for the first implementation period ending in 2018. EPA has been ordered by the court to develop a new rule and the opinion makes clear that after promulgating that new rule, EPA must provide states an opportunity to draft and submit SIPs to implement that rule. Thus, CAIR cannot be replaced until EPA has promulgated a final rule through a notice-and-comment rulemaking process, states have had an opportunity to draft and submit regional haze SIPs, EPA has reviewed the SIPs to determine if they can be approved, and EPA has taken action on the SIPs, including promulgating a Federal implementation plan, if appropriate. These steps alone will take many years, even with EPA and

management of regional haze, visibility and other air quality issues in the southeastern United States. Member state and tribal governments include: Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, West Virginia, and the Eastern Band of the Cherokee Indians.

the states acting expeditiously. The Court's clear instruction to EPA that it must continue to administer CAIR until a "valid replacement" exists provides an additional backstop; by definition, any rule that replaces CAIR and meets the Court's direction would require upwind states to eliminate significant downwind contributions. Further, in vacating CSAPR and requiring EPA to continue administering CAIR, the D.C. Circuit emphasized that the consequences of vacating CAIR "might be more severe now in light of the reliance interests accumulated over the intervening four years." *EME Homer City*, 696 F.3d at 38. The accumulated reliance interests include the interests of states who reasonably assumed they could rely on reductions associated with CAIR to meet certain regional haze requirements. For these reasons also, EPA believes it is appropriate to allow Florida to rely on reductions associated with CAIR in other states as sufficiently permanent and enforceable pending a valid replacement rule for purposes such as evaluating RPGs in the regional haze program. Following promulgation of the replacement rule, EPA will review regional haze SIPs as appropriate to identify whether there are any issues that need to be addressed.

EPA believes the Commenter overstates the overarching nature of the changes due to the CAIR remand. Many of the emissions units subject to reasonable progress analysis either have already reduced SO₂ emissions or will be reducing SO₂ emissions in the near future. These reductions are the result of company decisions to shut-down or re-power certain units or to install new control equipment (e.g., scrubbers) in response to CAIR. Furthermore, Florida has reviewed the facilities subject to BART or reasonable progress analysis on a case-by-case basis and has developed BART or reasonable progress requirements for the sources for which additional controls were appropriate. EPA expects these BART and reasonable progress requirements to provide benefits similar to or greater than those provided by CAIR. In fact, as Florida notes in

its September 17, 2012, SIP amendment, EGU emissions in 2010 were already lower than the projected emissions for 2018 used in the State's RPG analysis. In addition, unlike the enforceable emissions limitations and other enforceable measures in the LTS, RPGs are not directly enforceable. *See* 64 FR 35733; 40 CFR 51.308(d)(1)(v). Because the projected SO₂ emissions reductions are sufficient to meet the RPGs, and because actual emissions in 2010 have been shown to be lower than projected emissions for 2018, EPA is approving Florida's RPGs and LTS.

As noted in the May 25, 2012, proposal, EPA believes that the five-year progress report is the appropriate time to address any changes, if necessary, to the RPG demonstration and/or the LTS. EPA expects that this demonstration will address the impacts on the RPGs of any needed adjustments to the projected 2018 emissions due to updated information on the emissions for EGUs and other sources and source categories. If this assessment determines that an adjustment to Florida's regional haze SIP is necessary, EPA regulations require a SIP revision within a year of the five-year progress report. *See* 40 CFR 51.308(h)(4).

Comment 2: The Commenter contends that EPA cannot approve Florida's RPGs in a manner consistent with the Administrative Procedure Act (APA) because the Agency did not specifically state that it was proposing to approve the RPGs in the May 25, 2012, action.

Response 2: EPA disagrees with the Commenter that the public was not provided adequate notice that the Agency was proposing approval of the RPGs included in Florida's regional haze SIP and that the public did not have a meaningful opportunity to comment on such a proposed approval. In the May 25, 2012, proposed rulemaking, EPA explicitly and repeatedly stated that

it proposed to grant limited approval to the State's March 19, 2010, August 31, 2010, and April 13, 2012, regional haze SIP submittals.⁶ *See, e.g.*, 77 FR 31242, 31261. EPA described the content of these submittals in the action and included them in the docket. For example, in Section V.7 (77 FR 31259), entitled "RPGs," EPA discussed the RPGs included in Florida's SIP subject to the rulemaking action.

As stated in the May 25, 2012, action, a limited approval results in approval of the entire SIP with regards to regional haze, even of those parts that are deficient, preventing EPA from granting a full approval.⁷ Because EPA identified the RPGs as part of Florida's regional haze SIP and stated that its proposed action would act as approval of Florida's entire regional haze SIP, the public was provided with adequate notice that EPA's action included approval of Florida's RPGs. Furthermore, in the December 10, 2012, action, EPA explicitly stated that it was proposing full approval of the entire regional haze SIP due to the changes made in Florida's September 17, 2012, final regional haze SIP amendment to address the deficiencies leading to the proposed limited approval and limited disapproval actions. It is not necessary or practical for EPA to single out every element of a SIP submission and expressly state that it is acting on each element when it proposes to act on the SIP submission as a whole. *See, e.g., Tucker v. Atwood*, 880 F.2d 1250, 1251 (11th Cir. 1989) (explaining that a rulemaking notice under Section 553(b) of the APA "requires no more than ' . . . a description of the subjects and issues involved.'"); *Lloyd Noland Hosp. & Clinic v. Heckler*, 762 F.2d 1561, 1565 (11th Cir. 1985) (noting that a rulemaking notice "is adequate if 'it affords interested parties a reasonable opportunity to

⁶ EPA also stated that it would address the 18 reasonable progress units and 11 facilities with BART-eligible EGUs subject to CAIR (a total of 20 EGUs) that were not covered by Florida's April 13, 2012, SIP submittal in a subsequent action. *See, e.g.*, 77 FR 31254, 31256.

⁷ *Processing of State Implementation Plan (SIP) Revisions*, EPA Memorandum from John Calcagni, Director, Air Quality Management Division, OAQPS, to Air Division Directors, EPA Regional Offices I–X, September 7, 1992, (1992 Calcagni Memorandum) located at <http://www.epa.gov/ttn/caaa/t1/memoranda/siproc.pdf> (see footnote 3, May 25, 2012, 77 FR 31242).

participate in the rulemaking process.”); *Forester v. Consumer Prod. Safety Comm’n*, 559 F.2d 774, 787 (D.C. Cir. 1977) (“Section 553(b) does not require that interested parties be provided precise notice of each aspect of the regulations eventually adopted. Rather, notice is sufficient if it affords interested parties a reasonable opportunity to participate in the rulemaking process.”).

EPA’s proposal to approve the RPGs is also evident through language in Section V.7 of the May 25, 2012, action stating that the modeling supporting the analysis of these RPGs is consistent with EPA guidance prior to the CAIR remand and that the RPGs for the Class I areas in Florida are based on modeled projections of future conditions that were developed using the best available information at the time the analysis was done. EPA also explained the requirements for a review of the reasonableness of this estimate as part of the mid-course review and notes that FDEP has committed to follow this process.

In addition, the proposed limited SIP disapproval for Florida and other states (December 30, 2011, 76 FR 82219) referenced in Section I of the May 25, 2012, proposal action (77 FR 31242) was explicit that EPA was not proposing to disapprove the RPGs for 2018 and that EPA believed that the five-year progress report was the appropriate time to address any changes to the RPG demonstration and, if necessary, the LTS. *See* 76 FR 82229. For all of the reasons discussed above, EPA’s intention to approve the RPGs for Florida was clear, unambiguous, and consistent with the requirements of the APA.

Comment 3: The Commenter does not believe that EPA can approve Florida’s RPGs because the State must re-evaluate its demonstration of reasonable progress based on concrete, definite reductions of visibility-impairing pollutants that result only from those programs and emissions limits that are legally in force. The Commenter states that there is no lawful or rational basis for

assuming that the reasonable progress projected by Florida will occur because the State's RPGs rely on CAIR, "a temporary program due to the CAIR remand." The Commenter also asserts that Florida's RPGs should be disapproved because they "rely upon other control programs whose benefits are far from certain" (e.g., Atlanta/Birmingham/Northern Kentucky 1997 8-hour ozone nonattainment area SIP; consent decrees for Tampa Electric, Virginia Electric and Power Company, and Gulf Power-Plant Crist; Industrial Boiler Maximum Achievable Control Technology (MACT)). The Commenter also takes issue with EPA's assertion that Florida may address any discrepancies between projected emissions and actual reductions in the five-year progress report and contends that the five-year review of RPGs is not a lawful or rational basis for approving the SIP.

Response 3: The technical information provided in the docket demonstrates that the emissions inventory in the SIP adequately reflects projected 2018 conditions and should be approved. In addition, EPA does not believe that the State's reliance on CAIR in developing its RPGs affects EPA's ability to approve these RPGs for the reasons discussed in the response to Comment 1. EPA does not expect that the other inventory differences like those alleged, even if they occur, would affect the adequacy of Florida's regional haze SIP. The RPGs are based on emissions estimates and modeling conducted by VISTAS for its 10 member states, including Florida, which reflect Florida's best estimate of expected conditions in 2018 during the period that the initial March 19, 2010, regional haze SIP submittal was developed.

Florida's 2018 projections are based on the State's technical analysis of the anticipated emissions rates and level of activity for EGUs, other point sources, non-point sources, on-road sources, and off-road sources based on their emissions in the 2002 base year, considering growth

and additional emissions controls to be in place and federally enforceable by 2018. The emissions inventory used in the regional haze technical analyses that was developed by VISTAS with assistance from Florida projected 2002 emissions (the latest region-wide inventory available at the time the SIP submittal was being developed) and applied reductions expected from Federal and state regulations affecting the emissions of VOC and the visibility impairing pollutants NO_x, particulate matter (PM), and SO₂. It is expected that individual projections within a statewide inventory will vary from actual emissions over a 16-year period (i.e., 2002-2018 for the first implementation period). For example, some facilities shut down whereas others expand operations. Furthermore, economic projections and population changes used to estimate growth often differ from actual events; new rules are modified, changing their expected effectiveness; and methodologies to estimate emissions improve, modifying emissions estimates.

In the regional haze program, uncertainties associated with modeled emissions projections into the future are addressed through the requirement under the RHR to submit periodic progress reports in the form of a SIP revision. Specifically, 40 CFR 51.308(g) requires each state to submit a report every five years evaluating progress toward the RPGs for each mandatory Class I area located in the state and for each Class I area outside the state that may be affected by emissions from within the state. To minimize the differences between projected emissions and what will actually occur at the end of the implementation period, the RHR requires that the five-year review address any expected significant differences due to changed circumstances from the initial projected emissions, provide updated expectations regarding emissions for the implementation period, and evaluate the impact of these differences on RPGs.

The five-year review is a mechanism to assure that these expected differences between projected and actual emissions (in this case, for the year 2018) are considered and that their

impact on the RPGs (in this case, for the year 2018) is evaluated. Despite the Commenter's claims to the contrary, the projections included in the SIP are still reasonably robust projections of emissions expected in 2018 and reflect a reasonable estimate of visibility conditions in 2018. EPA does not expect the five-year review will result in wholesale changes to emissions or visibility estimates and regards the regulatory process established in the RHR to be appropriate. The State's analysis of projected emissions and its reliance on these projections to establish its RPGs meets the requirements of the RHR and EPA guidance and adequately reflects the best estimate of expected ambient conditions in 2018.

Comment 4: The Commenter states that because the RPGs for Florida's Class I areas fail to meet uniform rate of progress (URP) projections for 2018 for two Class I areas, and "barely meet URP for others," the RPGs are arbitrary and unlawful. The Commenter believes that without CAIR, or any other comprehensive SO₂ control program, there is no rational basis for finding that Florida's RPGs and LTS will provide reasonable progress. The Commenter also states that Florida has not provided an explanation why it was reasonable for the State to fall short of the URP for the St. Marks Class I area (located in Florida) and the Okefenokee Class I area (located in Georgia) based upon the four reasonable progress factors and that EPA may not approve the RPGs until Florida provides such an explanation and has subjected it to notice and comment. The Commenter states that EPA and Florida lack factual support for the position that Florida is likely to do better than predicted once it makes final BART and reasonable progress determinations and that Florida's claims of progress illegally and irrationally rely on emissions reductions from the CAIR program. Even then, according to the Commenter, the plan fails to

assure progress sufficient to achieve the URP at two Class I areas and just barely provides for such progress at others.

Response 4: As stated in the proposal, the RHR does not mandate specific milestones or rates of progress, but instead calls for states to establish goals that provide for “reasonable progress” toward achieving natural (i.e., “background”) visibility conditions. In setting RPGs, states must provide for an improvement in visibility for the most impaired days over the first implementation period of the SIP and ensure no degradation in visibility for the least impaired days over the same period. States have significant discretion in establishing RPGs, but are required to consider the following factors established in section 169A of the CAA and in EPA’s RHR at 40 CFR 51.308(d)(1)(i)(A): (1) the costs of compliance; (2) the time necessary for compliance; (3) the energy and non-air quality environmental impacts of compliance; and (4) the remaining useful life of any potentially affected sources. States must demonstrate in their SIPs how these factors are considered when selecting the RPGs for the best and worst days for each applicable Class I area. States have flexibility in how they take these factors into consideration.

Florida followed EPA guidance and the RHR in preparing its RPGs. The State projects that it will meet the URP at two of its Federal Class I areas and falls just 0.03 deciview (dv) short of the URP at St. Marks. Florida stated in its September 12, 2012, SIP submittal that many of the sources that were projected to reduce emissions due to CAIR have shut down or re-powered (providing greater reductions than projected from emissions controls). The State’s SIP submittal also notes that the projected reductions from the Industrial Boiler MACT Rule and EPA’s Utility Mercury and Air Toxics Standards (MATS) Rule appear to be providing greater SO₂ reductions than expected when they were evaluated and modeled for reasonable progress. With regard to

Florida's assessment of CAIR sources, Florida has reviewed all the facilities subject to BART or reasonable progress analysis on a case-by-case basis and determined BART or reasonable progress requirements for the remaining sources for which additional controls were appropriate.

EPA expects these BART and reasonable progress requirements to provide similar or greater benefits than CAIR. As noted in the September 17, 2012, Florida SIP submittal, emissions from Florida EGUs in 2010 were already below the emissions levels projected for 2018 without these additional BART limitations. As Florida stated on page 174 in its September 2012, SIP submittal, "[t]hese modeling results were used to set the reasonable progress goals. Because not all expected reductions were included in the final modeling runs (due to timing of the runs to be complete in time for SIP submittals), reductions will likely be greater when all BART reductions and reasonable measures are taken into account." In summary, Florida believes that the RPGs remain valid and that no further assessment is necessary for this first implementation period and EPA agrees with this assessment.

In addition, while SO₂ reductions due to the original Industrial Boiler MACT Rule are included in the 2018 emissions projection, the revised Industrial Boiler MACT Rule is expected to result in even greater emissions reductions than those reductions previously accounted for and evaluated as part of the 2018 projections presented in the submittal. In summary, although the sources and control strategies evaluated as part of the VISTAS process result in a RPG that is 0.03 dv less than the URP projection, Florida asserts, and EPA agrees, that the emissions reductions resulting from existing regulations, plus additional reductions from the newly-promulgated Industrial Boiler MACT, will result in "reasonable progress" that meets or exceeds the URP in all of the Florida Class I areas.

Comment 5: The Commenter contends that Florida must “go beyond the uniform rate of progress analysis to evaluate whether greater progress than the uniform rate is reasonable” and that the SIP is deficient because the State has not provided such an evaluation.

Response 5: EPA affirmed in the RHR that the URP is not a “presumptive target.” Rather, it is an analytical requirement for setting RPGs. *See* 64 FR 35731-32. If a state sets an RPG that provides a slower rate of visibility improvement than the URP, a state must demonstrate that the RPG is nonetheless reasonable and that it is unreasonable to meet the URP for the Class I area at issue. 40 CFR 51.308(d)(1)(ii). The RHR does not require a state to evaluate whether it would be reasonable to set a RPG that would achieve greater visibility improvement than the URP. In determining RPGs for Florida’s Class I areas, the State identified sources eligible for a reasonable progress control evaluation using certain selection criteria (also described in response to Comment 6 and at 77 FR 31251) and described those evaluations in its SIP. Florida performed this reasonable progress evaluation in accordance with EPA regulations and guidance.

Comment 6: The Commenter states that Florida’s identification of sources to assess for reasonable progress is flawed and cannot be approved by EPA because the State selected sources for reasonable progress control based upon its assumption that CAIR would maintain reasonable progress towards visibility goals during the first implementation period (i.e., the Commenter believes that the State relied on CAIR to reduce the number of sources evaluated for reasonable progress controls). The Commenter also states that because Florida expected “visibility in Class I areas to improve at or very near the nominal straight line path to the 2064 goal” based on this assumption, it selected a ratio of source emissions (“Q”) divided by distance from a Class I area

(“d”) of 50 as the threshold for reasonable progress evaluation (five times the nominal significance criteria) and that Florida narrowed the field further by eliminating units that emit less than 250 tons per year of SO₂ and are more than 300 kilometers (km) from a Class I area, “leaving 16 of these very large sources unconsidered for RP controls.” The Commenter states that Florida’s approach, in CAIR’s absence, now falls “well short of the [RHR’s] mandate that the state ‘consider major and minor stationary sources, mobile sources, and area sources’ as it develops emissions limitations” and to include all “measures necessary to achieve the RPGs.” The Commenter does not believe that EPA can approve Florida’s approach unless the State can demonstrate that its methodology is warranted even in CAIR’s absence and that, without CAIR in place, Florida acted arbitrarily in increasing the nominal significance criteria.

According to the Commenter, the State must revise its Q/d threshold for its BART exemption modeling to “rationally identify those sources which may cause or contribute to visibility impairment in one or more Class I areas.”⁸ The Commenter also believes that Florida’s approach was flawed because it was based solely on SO₂ emissions; the State’s LTS should have also considered reducing NO_x and NH₃ emissions; sulfate emissions account for only 30-60 percent of the impairment at the Everglades Class I area; and Florida excluded all sources that commenced construction or submitted a complete application after August 30, 1999, from its reasonable progress review. Therefore, the Commenter believes that Florida arbitrarily ignored a large percentage of sources that emit visibility impairing pollutants.

Response 6: States are required to consider the improvement expected from existing CAA programs (such as CAIR for affected states) in setting their RPGs. Thus, Florida appropriately

⁸ Florida only used a Q/d threshold to identify sources subject to a reasonable progress analysis. EPA has assumed that the Commenter intended to refer to the reasonable progress analysis rather than to “BART exemption modeling” and has responded accordingly.

factored in the expected emissions reductions and resulting visibility improvement from the implementation of CAIR in setting its RPGs. However, the identification of the major sources in Florida contributing to visibility impairment and the necessary emissions reductions from these sources was not winnowed because of CAIR. As discussed below, Florida established and applied certain criteria to identify for a reasonable progress control evaluation the largest known sources of SO₂ having the potential to impair visibility in Class I areas. The Florida LTS was developed by the State, in coordination with the VISTAS RPO, through an evaluation of the following components: (1) identification of the emissions units within Florida and in surrounding states that likely have the largest impacts currently on visibility at the State's Class I areas; (2) estimation of emissions reductions for 2018 based on all controls required or expected under Federal and state regulations for the 2004–2018 period (including BART); (3) comparison of projected visibility improvement with the URP for the State's Class I areas; and (4) application of the four statutory factors in the reasonable progress analysis for the identified emissions units to determine if additional controls were reasonable.

As discussed in EPA's May 25, 2012, proposal, Florida's assessment concluded that ammonium sulfate is the largest contributor to visibility impairment at the State's Class I areas as a whole. *See* 77 FR 31250. For the Chassahowitzka and St. Marks Class I areas, these ammonium sulfate particles, resulting from SO₂ emissions, contribute roughly 71 percent of the calculated light extinction on the haziest days, and in Everglades National Park, the ammonium sulfate contribution was 40 percent of the calculated light extinction on the haziest days (due to a greater relative influence from organic carbon). Visibility impairment at Everglades National Park is occasionally dominated by organic carbon emissions due to lower SO₂ emissions in South Florida and the park's greater distance from large continental SO₂ emissions sources.

However, controlling anthropogenic carbon emissions sources was determined not to be a viable strategy for improving visibility for the first implementation period because the organic carbon emissions are primarily biogenic in origin. Therefore, reduction of SO₂ emissions would be the most effective means of reducing visibility impairment at Florida's Class I areas. Because over 85 percent of 2002 SO₂ emissions in Florida were attributable to EGUs and industrial point sources, EPA considers Florida's decision to focus on SO₂ emissions from these facilities as a reasonable application of EPA's *Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program*⁹ (EPA's Reasonable Progress Guidance).

The State then considered three variables that each play a strong role in determining the impact any source may have on a particular Class I area. The first variable is the amount of SO₂ emissions (the greater the emissions, the more likely a source may impact visibility); the second variable is distance to a Class I area (visibility impacts decrease as distance from a Class I area increases); and the third variable is frequency of winds (residence time) in the direction of the Class I area from the source (trajectory analysis). The VISTAS states considered a number of different combinations of these variables as a surrogate for visibility impact.

The Commenter raises concerns relating to the Q/d threshold for BART exemption modeling in Florida. To clarify, the State used the Q/d metric as a threshold to identify those sources of SO₂ subject to a reasonable progress control evaluation, not for BART evaluations. Florida chose to develop a reasonable progress source-selection metric based on Q/d that would be essentially equivalent to the VISTAS metric with several differences. Florida chose to use 2002 emissions for Q, instead of the 2018 projections that VISTAS used in its suggested

⁹ *Guidance for Setting Reasonable Progress Goals Under the Regional Haze Program*, July 1, 2007, memorandum from William L. Wehrum, Acting Assistant Administrator for Air and Radiation, to EPA Regional Administrators, EPA Regions 1–10 ("EPA's Reasonable Progress Guidance"), located at: http://www.epa.gov/ttn/caaa/t1/memoranda/reasonable_progress_guid071307.pdf.

methodology for determining sources subject to a reasonable progress evaluation developed by its member states. Because the Integrated Planning Model (IPM) projected conversion of virtually all of the oil-fired boilers in Florida to natural gas, using 2018 emissions estimates of SO₂ from these sources would have exempted these units from reasonable progress review. Thus, the approach Florida used was more likely to result in selection of certain larger SO₂ sources for reasonable progress control analysis.

As a general strategy, Florida did not want to base its selection of sources for a reasonable progress review on the IPM's prediction of how the CAIR market-based reductions will occur. Rather, Florida chose to use criteria that would include the known largest sources having the greatest potential to impair visibility and that would ensure that these sources are addressed through the reasonable progress process. Because the State was evaluating existing sources for additional control, rather than simply screening whether a proposed new facility warranted further evaluation, Florida chose a Q/d threshold equal to 50 rather than 10 to assure that many of the largest sources of SO₂ nearest the Class I areas were required to address reasonable progress, while smaller sources (not expected to provide significant, cost-effective reductions) were excluded. Similarly, Florida provided some bounds for the Q and d values. The State excluded small (< 250 tons per year) units because any reductions from these sources would likely be small and not very cost-effective for the first implementation period. Also, Florida's decision to consider only sources within 300 km of a Class I area was consistent with the bounds used in the protocol developed by VISTAS, *Protocol for the Application of the CALPUFF Model for Analyses of Best Available Retrofit Technology (BART)*,¹⁰ dated December 22, 2005, for the BART-exemption analysis. Finally, Florida only considered sources that

¹⁰ The 2005 VISTAS protocol is located at: http://www.vistas-sesarm.org/BART/VISTASBARTModelingProtocol_Dec222005.pdf.

commenced construction or submitted a complete application prior to August 30, 1999. This date was chosen because, under Florida's permit review process, all permits issued after that date require that visibility specifically be addressed. Hence, it is unlikely that additional cost-effective controls would be identified.

EPA disagrees that Florida's Q/d threshold must be revised. The guidance referenced by the Commenter is not directly relevant to the process developed by Florida for screening sources for a reasonable progress analysis during the first implementation period.¹¹ This guidance, issued by the Federal Land Managers in 2010, refers to the initial screening test for new or modified sources subject to EPA's New Source Review (NSR) regulations to determine whether a visibility evaluation is necessary for these proposed new sources. This document is not part of the guidance developed by EPA or used by states to develop their long-term strategies for regional haze.

As noted in EPA's Reasonable Progress Guidance¹² and discussed further in EPA's May 25, 2012, proposal action on the Florida regional haze SIP (77 FR 31250), the RHR gives states wide latitude to determine additional control requirements, and there are many ways to approach identifying additional reasonable measures as long as the four statutory factors are considered. Florida explained that its intent in choosing a Q/d threshold of 50 was to assure that many of the largest sources of SO₂ that are closest to the Class I areas were required to address reasonable progress, while smaller sources (not expected to provide significant, cost-effective reductions in the first implementation period) were excluded. EPA finds this explanation to be reasonable. Florida also included a comparison between its methodology and the VISTAS methodology and

¹¹ Federal Land Managers' Air Quality Related Values Work Group (FLAG), *Phase I Report—Revised (2010)* http://nature.nps.gov/air/pubs/pdf/flag/FLAG_2010.pdf.

¹² EPA's Reasonable Progress Guidance, page 4–2.

demonstrated that the differences were minimal. For example, 15 units that were identified by the VISTAS methodology were exempted under Florida's method, but Florida also identified nine additional units for analysis that the VISTAS method would have excluded. Of the 15 units identified by the VISTAS methodology but excluded by the Florida methodology, nine have a Q/d of less than 17 and five others are BART-subject sources. EPA regards the Florida methodology as an acceptable approach for determining the sources that should be subject to a reasonable progress analysis for the first implementation period.

Comment 7: The Commenter contends that EPA cannot approve Florida's reasonable progress control determinations as proposed because the State's reasonable progress analysis relies on CAIR or CSAPR. The Commenter believes that trading programs such as CAIR and CSAPR are not reliable guarantors of emissions controls under the regional haze program (incorporating by reference its February 28, 2012, comments on EPA's proposed rule to find that CSAPR is better than BART). The Commenter also states that EPA's analysis and approval of CSAPR as being better than BART does not validate the use of the CSAPR for reasonable progress as a matter of course and that such a determination must be made on a state-by-state basis, upon consideration of whether CSAPR assures reasonable progress or if further controls are required. Additionally, the Commenter does not believe that CSAPR can assure reasonable progress because CSAPR controls only ozone season NO_x in Florida, while Florida has determined that the bulk of visibility impairment at its Class I areas is due to SO₂ emissions.

Response 7: EPA addressed the Commenter's February 28, 2012, comments on CSAPR in its June 7, 2012, better-than-BART action (77 FR 33642). Regarding the comments about a

relationship between CAIR, CSAPR, and reasonable progress in Florida, see the response to Comment 1. EPA did not propose in its May 25, 2012, action, and is not approving in this action, a conclusion that no additional controls for EGUs in Florida beyond CAIR or CSAPR are reasonable in the first implementation period. The State performed source-by-source analyses of the SO₂ emissions control alternatives for the affected facilities and made case-by-case reasonable progress determinations for each of these sources. EPA is relying on these analyses to address reasonable progress requirements. The State has adequately justified focusing on SO₂ emissions for its reasonable progress demonstration, as discussed in the response to Comment 6, and did not consider additional NO_x reductions in its reasonable progress demonstration for this implementation period.

Comment 8: The Commenter does not believe that EPA can approve Florida's exemption of JEA Northside Unit 27 from a reasonable progress analysis on the grounds that it took permit limits in 2009 to limit its SO₂ emissions.¹³ The Commenter believes that Florida's exclusion of this facility from a reasonable progress analysis is arbitrary and inconsistent with the RHR because visibility impacts are measured based on a one-hour averaging time and the Commenter does not believe that these federally enforceable limits ensure that short-term visibility impacts are not experienced in the Okefenokee Class I area. The Commenter states that these permit limits must be modified to provide for a one-hour averaging time unless there is a "reasoned and factually supported explanation in the SIP as to why short-term visibility impacts will not occur despite the permit's relatively long averaging times."

¹³ The federally enforceable SO₂ emissions limitations are 0.2 pound per million British Thermal Units (lb/MMBtu) heat input, 24-hour average, and 0.15 lb/MMBtu heat input, 30-day rolling average.

Response 8: EPA disagrees with the Commenter’s contention that the differences in averaging time identified in the comment should affect the Agency’s findings and conclusions for Northside Unit 27.” The reasonable progress evaluation is performed for the 20 percent best and worst days. While EPA does assess Interagency Monitoring of Protected Visual Environments (“IMPROVE”) samples over a 24-hour time period (not hourly as stated by the Commenter), none of the visibility program requirements are based on these 24-hour peaks. Both the 20 percent best days and 20 percent worst days represent an average over one-fifth of monitored days of the year. Because this is a relatively long time period, it tends to “smooth out” any variations that would occur over a shorter time period. EPA finds no reason to believe that there is a need to address any potential short-term variations in emissions with a short-term emissions limit.

Comment 9: The Commenter does not believe that EPA’s May 25, 2012, proposal states the Agency’s intentions with sufficient clarity or that EPA can approve SIP components that it has not clearly proposed to approve in the notice. According to the Commenter, EPA has not met the APA’s notice and comment provisions governing rulemaking requiring that an agency clearly state what it is proposing so that members of the public have adequate notice and can offer informed comment. The Commenter provides two examples of instances where it believes that EPA has not clearly stated whether it is proposing approval or disapproval of a particular SIP component (i.e., RPGs and the reasonable progress demonstration).

Response 9: As discussed in the response to Comment 2, EPA disagrees there was any ambiguity in its clearly stated intention in the May 25, 2012, proposed rulemaking action to grant

limited approval to the March 19, 2010, August 31, 2010, and April 13, 2012, Florida regional haze SIP submittals and the Agency's position that the limited approval acted as approval of these SIP submittals in their entirety. EPA devoted significant text in the May 25, 2012, rulemaking notice to RPGs and the reasonable progress demonstrations, and included the three SIP submittals (subject to the proposed action) in the docket for public review. Because EPA identified the RPGs and reasonable progress demonstrations as part of the SIP, and stated that its proposed action would act as approval of the entire three regional haze SIP submittals, the public was provided with adequate notice that EPA's action included approval of Florida's RPGs and reasonable progress demonstrations. Furthermore, in the December 10, 2012, action, EPA explicitly stated that it was proposing full approval of the entire regional haze SIP due to the changes made in Florida's September 17, 2012, final regional haze SIP amendment to address the deficiencies leading to the proposed limited approval and limited disapproval actions.

It is not necessary or practical for EPA to single out every element of a SIP submittal and expressly state that it is acting on each element when it proposes to act on the SIP as a whole. *See, e.g., Tucker v. Atwood*, 880 F.2d at 1251 (explaining that a rulemaking action under Section 553(b) of the APA "requires no more than ' . . . a description of the subjects and issues involved.'"); *Lloyd Noland Hosp. & Clinic v. Heckler*, 762 F.2d at 1565 (noting that a rulemaking notice "is adequate if 'it affords interested parties a reasonable opportunity to participate in the rulemaking process.'"); *Forester v. Consumer Prod. Safety Comm'n*, 559 F.2d at 787 ("Section 553(b) does not require that interested parties be provided precise notice of each aspect of the regulations eventually adopted. Rather, notice is sufficient if it affords interested parties a reasonable opportunity to participate in the rulemaking process.").

Comment 10: The Commenter believes that it is improper for EPA to withhold full approval of Florida's regional haze SIP because CAIR is still in effect.

Response 10: See the response to Comment 1. In this action, EPA is now fully approving Florida's regional haze SIP because the State has replaced its reliance on CAIR with source-specific emissions limitations to satisfy both the BART requirements and the requirement for a LTS sufficient to achieve the state-adopted RPGs.

B. Response to Comments on the December 10, 2012, Proposal

Lansing Smith

Comment 11: The Commenter contends that FDEP improperly rejected wet flue gas desulfurization (FGD) as BART for Units 1 and 2 at Lansing Smith. The Commenter states that it would be arbitrary and capricious for EPA to approve the BART determination because the analysis inflated the cost-effectiveness of wet FGD by using an emissions limit of 0.15 lb/MMBtu of SO₂ rather than the removal efficiency potential of 95 percent identified by Gulf Power and by not evaluating the most stringent control efficiency associated with wet FGD (asserted to be 98 percent or greater). The Commenter also states that wet FGD is cost-effective even using the "flawed" values provided in the SIP because Florida's values are "still easily within the range which EPA has already determined to be cost-effective elsewhere" and because they are lower than cost-effectiveness values associated with BART controls adopted by FDEP at FPL's Manatee power plant.

Response 11: In evaluating the statutory BART factors for FGD, FDEP most heavily weighed the lack of visibility improvement associated with this control technology for Lansing Smith, not the cost of control. States have the flexibility to determine the weight and significance of each factor. *See, e.g.*, 70 FR 39123, 39153, 39170 (July 6, 2005). As discussed in EPA’s December 10, 2012, proposal, the model predicted limited visibility improvements considering both the absolute visibility benefits of FGD from the baseline as well as the incremental benefits from the use of FGD over dry sorbent injection (DSI). FDEP concluded that the predicted incremental improvements in visibility of 0.07 dv for Unit 1 and 0.09 dv for Unit 2 for the 98th percentile highest day over three years were not sufficient in light of the costs to warrant the selection of FGD as BART, regardless of whether FGD is cost-effective on a dollars per ton basis.

EPA agrees that if FDEP had assumed either a 95 percent or 98 percent removal efficiency for wet FGD, then Florida’s cost-effectiveness values would have been slightly lower, while the modeled visibility improvement would have been slightly higher. As explained in EPA’s BART Guidelines,¹⁴ however, sources evaluating post-combustion SO₂ controls can consider a presumptive limit of either 95 percent control or 0.15 lb/MMBtu when performing a five-factor BART analysis.¹⁵ Therefore, while FDEP could have used a higher removal efficiency in evaluating wet FGD, EPA believes that it was reasonable for FDEP to conduct its analysis using an emissions limit of 0.15 lb/MMBtu. Moreover, even had FDEP used a higher removal efficiency, the incremental visibility improvement expected from wet FGD over DSI would not have increased sufficiently to render FDEP’s conclusion unreasonable.

¹⁴*Guidelines for BART Determinations Under the Regional Haze Rule (“BART Guidelines”),* 40 CFR part 51 Appendix Y.

¹⁵ 40 CFR part 51 Appendix Y, IV.E.4.

Comment 12: The Commenter states that the visibility benefits associated with wet FGD are significant and that it is therefore inappropriate for EPA to dismiss these improvements. The Commenter concludes that EPA has overemphasized the incremental visibility improvements between wet FGD and DSI rather than evaluating the overall improvement associated with wet FGD and that it is improper for EPA to disregard the incremental improvements on the basis that they are less than 0.5 dv. The Commenter also concludes that EPA must consider the visibility improvement from wet FGD in relation to the statutory goal of eliminating visibility impairment. According to the Commenter, the improvement associated with wet FGD is “significant” in light of the 0.244 dv annual rate of progress required to achieve the national goal at the St. Marks Class I area and because the State is “already falling short of the uniform rate of progress required to restore visibility by 2064” at this Class I area. The Commenter further states that it would be arbitrary and capricious for EPA to reject wet FGD based on incremental visibility values when the incremental benefits from wet FGD are greater than the incremental visibility improvement between DSI and the switch to lower sulfur coal.

Response 12: See the response to Comment 11. FDEP did not summarily disregard wet FGD using a 0.5 dv threshold. FDEP evaluated the visibility improvements associated with wet FGD for Lansing Smith under a five-factor BART analysis and concluded that these improvements were minimal and did not warrant the selection of wet FGD as BART for the facility. The State has flexibility to weigh the five factors. *See* 70 FR 39170 (July 6, 2005). As discussed in Florida’s regional haze SIP, FDEP does not believe that St. Marks will fall short of the URP target in light of the additional BART and reasonable progress measures added to the regional haze SIP after the modeling of reasonable progress was conducted and the retirement and

conversion to natural gas of several EGUs. Moreover, states need not consider the URP at a specific Class I area in determining whether the visibility benefits associated with a given control option warrant its selection as BART. The URP is a metric that states use in setting their RPGs. A state's RPGs, in turn, need not be met by requiring the most stringent control technology at a single source, but rather can be met with a variety of control options and strategies that apply to various sources throughout the state. Here, EPA concurs with FDEP's assessment that the incremental visibility improvements associated with wet FGD at Lansing Smith are insufficient to warrant the technology's selection as BART.

Comment 13: The Commenter argues that the energy and non-air quality issues cited by FDEP (e.g., four megawatt (MW) power penalty, generation of scrubber waste) are immaterial and not sufficient to reject wet FGD as BART.

Response 13: FDEP included an evaluation of the energy and non-air quality impacts associated with wet FGD for completeness because these impacts are, collectively, one of the five statutory factors to be considered in a BART determination. This factor was not determinative in this instance because FDEP concluded that the visibility impacts associated with wet FGD for Lansing Smith did not warrant selection of this control technology as BART for the facility.

Comment 14: The Commenter contends that FDEP improperly rejected dry FGD as BART for Units 1 and 2 because the State did not fully consider the technology or provide any evidence supporting its cost and control efficiency claims that a full analysis is not required based on FDEP's determination that dry FGD is more expensive than wet FGD and has the same or lower

control efficiency. The Commenter asserts that dry FGD is technically feasible and can achieve control efficiencies of up to 98 percent removal. The Commenter also claims that it would be arbitrary and capricious for EPA to approve FDEP's rejection of dry FGD at Lansing Smith because the State approved the technology as BART at Crystal River.

Response 14: See the response to Comment 11. EPA's BART Guidelines provide that in identifying control options, states must identify the most stringent option and a reasonable set of options for analysis that reflects a comprehensive list of available technologies.¹⁶ It is not necessary to list all permutations of available control levels that exist for a given technology. The BART Guidelines also state that a "possible outcome of the BART procedures discussed in these guidelines is the evaluation of multiple control technology alternatives which result in essentially equivalent emissions. It is not our intent to encourage evaluation of unnecessarily large numbers of control alternatives for every emissions unit. Consequently, you should use judgment in deciding on those alternatives for which you should conduct detailed impacts analyses For example, if two or more control techniques result in control levels that are essentially identical, considering the uncertainties of emissions factors and other parameters pertinent to estimating performance, you may evaluate only the less costly of these options."¹⁷ EPA does not regard the differences in removal efficiency or cost between wet FGD and dry FGD to be sufficient in this instance to warrant an independent assessment of dry FGD as BART for Lansing Smith.

¹⁶ 40 CFR part 51 Appendix Y, IV.D, n.12.

¹⁷ 40 CFR part 51 Appendix Y, IV.D.2, item 5 under the heading "What type of demonstration is required if I conclude that an option is not technically feasible?"

Comment 15: The Commenter believes that FDEP's use of a 0.15 lb/MMBtu emissions limit underestimates the visibility benefits from a FGD system because it is equivalent to 89 percent control. The Commenter alleges that a control efficiency of 95 percent or 98 percent is achievable.

Response 15: See response to Comment 11. Changing the SO₂ control rate to the level suggested by the Commenter would not sufficiently alter the results of the modeling analysis for Lansing Smith to change the conclusion reached by FDEP. Furthermore, FDEP appropriately modeled FGD assuming a maximum allowable emissions rate of 0.15 lb/MMBtu. The actual percent reduction associated with this limit varies depending on the sulfur content of the coal burned. Different assumptions regarding the sulfur content of future coal used would result in different estimates of the emissions rate. For example, although the 0.15 lb/MMBtu rate results in an approximately 89.5 percent reduction from baseline emissions on an annual basis, it results in 93 and 91.5 percent reductions at Units 1 and 2, respectively, on the maximum actual short-term (24-hour) basis used in the baseline visibility assessment. Finally, it is also important to note that the 0.15 lb/MMBtu limit also takes into account emissions from startup, shutdown, and malfunction because the BART limit must be met on a continuous basis.

Comment 16: The Commenter believes that FDEP underestimated the visibility improvement associated with wet FGD, thereby making it less cost-effective, by only estimating Lansing Smith's visibility impacts on St. Marks, the only Class I area within 300 km of the facility. The Commenter states that EPA must consider CALPUFF modeling results from Federal Class I areas beyond 300 km and the cumulative visibility impacts across these multiple areas. The

Commenter cites to a May 2012 report entitled “Long Range Transport Models Using Tracer Field Experiment Data” in support of its position that changes to CALPUFF since the publication of the 1998 Interagency Workgroup on Air Quality Modeling (IWAQM) Phase 2 guidance requires consideration of visibility impacts beyond 300 km. The Commenter also contends that a rough analysis based on the visibility impacts for St. Marks using linear and simple Gaussian dispersion assumptions reveals that the impacts at Class I areas other than St. Marks may be significant.

Response 16: As a general matter, EPA agrees that Florida should have considered the visibility improvements at all affected Class I areas in its BART visibility assessments. For the Lansing Smith BART analysis, Florida modeled visibility impacts at St. Marks, the only mandatory Class I Federal area within the surrounding 300 km CALPUFF modeling domain used by FDEP to assess visibility impacts. FDEP conducted the visibility modeling consistent with the modeling protocol that VISTAS developed for preparing BART analyses entitled *Protocol for the Application of the CALPUFF Model for Analyses of Best Available Retrofit Technology (BART)*. (See appendix L of the Florida regional haze SIP submittal). This modeling protocol was developed in a transparent manner involving states, EPA, NPS, Fish & Wildlife Service (FWS), and any other interested entities that wished to participate in the public process. The protocol establishes 300 km as the boundary around a BART-subject source in which to model potential visibility impacts at Class I areas, and consistent with this protocol, FDEP modeled the highest visibility impact from the nearby Class I areas within a 300 km radius of the source. As noted above, there are no Class I areas other than the St. Marks area within the 300 km boundary around Lansing Smith’s BART-subject units.

EPA disagrees with the Commenter's assertion that changes to CALPUFF now support modeling at distances greater than 300 km. The Commenter cited a May 2012 technical evaluation (*Documentation of the Evaluation of CALPUFF and Other Long Range Transport Models Using Tracer Field Experiment Data*¹⁸) that evaluates several long range transport models based on several tracer studies. The report cited by the Commenter does not refute the IWAQM Phase 2 report which states that "IWAQM recommends use of CALPUFF for transport distances of order 200 km and less. Use of CALPUFF for characterizing transport beyond 200 to 300 km should be done cautiously with an awareness of the likely problems involved."¹⁹ In fact, the May 2012 report further "emphasizes the need for a standardized set of options for regulatory CALPUFF modeling."²⁰ Given these findings, EPA does not agree, as the Commenter asserts, that it must consider CALPUFF modeling results from Federal Class I areas beyond 300 km. EPA therefore believes that the results of CALPUFF modeling beyond 300 km of the source should be evaluated in light of the limitations discussed in the two guidance documents cited above.

Finally, as discussed in the response to Comment 11, FDEP concluded that the predicted incremental improvements in visibility of 0.07 dv for Unit 1 and 0.09 dv for Unit 2 for the 98th percentile day at St. Marks were not sufficient to warrant the selection of FGD as BART. The visibility improvements associated with FGD for the Class I areas outside of the 300 km area are expected to be even lower than those modeled for St. Marks. EPA does not believe that, even had impacts at Class I areas beyond 300 km been modeled, the visibility benefits of wet FGD across all Class I areas would be sufficient to make FDEP's SO₂ BART determination for

¹⁸ http://www.epa.gov/scram001/reports/EPA-454_R-12-003.pdf.

¹⁹ <http://www.epa.gov/scram001/7thconf/calpuff/phase2.pdf>, page 18.

²⁰ http://www.epa.gov/scram001/reports/EPA-454_R-12-003.pdf, page 10.

Lansing Smith unreasonable. The Commenter estimates visibility impacts based on “linear and simple Gaussian dispersion assumptions,” but did not provide any further information on how it developed these estimates or how EPA should consider them.

Comment 17: The Commenter states that EPA cannot approve the wet FGD BART analysis without further explanation from FDEP because Gulf Power provided emissions data for 2003-2005, while it modeled the visibility impacts of these emissions based on meteorological data from 2001-2003.

Response 17: FDEP chose 2001-2003 as its baseline period. It is not necessary to match the years of meteorology with the years of emissions in a BART analysis as long as both sets of data are representative. EPA guidance states that the “emissions estimates used in the models are intended to reflect steady-state operating conditions during periods of high capacity utilization.”²¹ Concerning the choice of an alternate period for the emissions data, EPA has reviewed the SO₂ emissions data for the Lansing Smith power plant in the EPA Clean Air Markets Division (CAMD) database²² for the 2000-2005 period. EPA found that the 2002 SO₂ emissions from Lansing Smith were lower than the SO₂ emissions for any other year in this period and are not representative of steady-state operating conditions during periods of high capacity utilization. The SO₂ emissions from 2003-2005 appear to be the most representative three-year period in this time frame and EPA supports the State’s use of this more representative data.

²¹ 40 CFR part 51 Appendix Y, III.A.3, Option 1.

²² <http://ampd.epa.gov/ampd/>.

Comment 18: The Commenter states that EPA cannot approve FDEP's rejection of wet FGD as BART without a more thorough review of the cost analysis. According to the Commenter: (1) the analysis is based on un-sourced and potentially biased data from an entity within Gulf Power's parent company; (2) the data underlying the control effectiveness estimates is not publicly available; (3) the cost estimates likely do not follow the *EPA Air Pollution Control Cost Manual* ("*EPA Control Cost Manual*");²³ and (4) the assumptions regarding a seven percent interest rate and 20-year scrubber lifetime are inappropriate.

Response 18: EPA reviewed the cost estimates provided by Gulf Power and found that they are consistent with those resulting from application of EPA's Control Cost Manual. Appendix I of the Florida regional haze SIP submittal describes how members of the public can obtain access to the data underlying the cost analysis. EPA believes that Florida has adequately addressed data access and that the State's cost analysis is consistent with the BART Guidelines. The seven percent interest rate used by FDEP is consistent with EPA's Control Cost Manual and guidelines issued by the Office of Management and Budget (Circular A-94). Furthermore, adjusting the scrubber lifetime from 20 to 30 years would affect the cost analysis only by approximately 10 to 11 percent. Decreasing the estimated cost of FGD by 10 percent would not make FDEP's conclusion that wet FGD is not SO₂ BART for Lansing Smith unreasonable given the minimal incremental visibility improvements associated with this technology at this facility.

Comment 19: The Commenter asserts that EPA cannot approve the PM BART limit of 0.1 lb/MMBtu for Lansing Smith, which is the existing limit in the facility's title V permit, without considering lowering the limit to reflect the most stringent emissions control level that the

²³ http://www.epa.gov/ttn/catcl/dir1/c_allchs.pdf.

facility's electrostatic precipitators (ESPs) are capable of achieving. The Commenter claims that it would be an arbitrary and capricious action for EPA to approve this limit as PM BART because the existing ESPs achieve emissions rates of 0.014 and 0.015 lb/MMBtu.

Response 19: In its BART analysis, FDEP evaluated actual PM emissions from Units 1 and 2 with current controls (high efficiency hot- and cold-side ESPs), the impact of these emissions on visibility at St. Marks, existing permit conditions, and the visibility improvement associated with reducing the PM limits beyond the facility's actual emissions. In assessing impacts due to PM emissions at St. Marks, FDEP reviewed historic PM emissions from Units 1 and 2 and established a baseline filterable PM₁₀ emissions rate of 47.9 lb PM/hour, equal to approximately 0.025 lb/MMBtu for Unit 1 and 0.021 lb/MMBtu for Unit 2, derived from the highest stack test for the three-year period of 2003-2005 combined with maximum heat input. FDEP modeled visibility impairment using this baseline and calculated an impact at St. Marks due to PM emissions from Units 1 and 2 of approximately 0.02 dv, equal to 1.3 percent of the total baseline impact. FDEP also evaluated fabric filters as a possible BART control option, which would reduce PM emissions to a rate of 0.008 lb/MMBtu, and found that reducing PM emissions beyond the baseline emissions rate would result in a visibility improvement of 0.00 dv at St. Marks.

While the existing permit limit of 0.1 lb/MMBtu is above actual controlled emissions levels and FDEP arguably should have tightened the limit to reflect the capabilities of the existing ESPs, EPA believes that FDEP's decision not to tighten the limit was reasonable for several reasons. First, the impact of tightening Lansing Smith's PM emissions limit would be minimal from a visibility perspective. Second, Lansing Smith's current operating permit does

not authorize the facility to increase PM emissions beyond the actual controlled levels when the facility installs DSI for SO₂ BART. EPA notes that Lansing Smith must submit a comparison of baseline actual emissions to future actual emissions once a final design is available for the installation of DSI at the facility. This comparison should be available in early 2015. At that time, FDEP will need to determine whether the installation of DSI will cause a significant increase in the facility's PM emissions, thereby triggering PSD review. Third, MATS was promulgated on April 24, 2013, (78 FR 24073) for existing sources and will further limit PM emissions from Units 1 and 2 to 0.03 lb/MMBtu by 2015. For these reasons, EPA believes that the existing permit limit of 0.1 lb/MMBtu for Units 1 and 2 at Lansing Smith is adequate for PM BART at this time. However, EPA expects FDEP to review the PM emissions limit in the next regional haze implementation period, at which time the PM impacts, if any, from the operation of DSI for SO₂ BART will be clear.

Comment 20: The Commenter claims that the modeling files have not been made available and that EPA cannot evaluate or approve the BART determinations for the Lansing Smith facility without this information. The Commenter requests that EPA obtain the modeling files, evaluate them for consistency with the BART Guidelines and Control Cost Manual, and provide them for public review and comment.

Response 20: Appendix I of the Florida regional haze SIP submittal describes how members of the public can obtain access to the modeling files. It also states that the raw meteorological, emissions, and air quality modeling input and output datasets will in many cases surpass any practical file size for online storage or downloading. EPA has accessed the data in this manner

and reviewed the appropriate files. EPA believes that Florida has adequately addressed data access and that the State's visibility modeling for Lansing Smith is consistent with the BART Guidelines. The EPA Control Cost Manual is not relevant to visibility modeling.

Crystal River

Comment 21: The Commenter notes that under Option 1 (shutdown), the underlying BART analysis does not consider the use of DSI as an interim control for SO₂. The Commenter believes that an analysis of this control is required before EPA can approve the proposed BART determination.

Response 21: EPA has evaluated the cost-effectiveness of DSI under the shutdown option and concludes that, although FDEP should have evaluated DSI as a possible interim BART control option, DSI would not be cost-effective.²⁴ EPA estimates that DSI would result in approximately \$46,000,000 in capital costs and \$54,000,000 in annual operating costs at the Crystal River facility, not including expenses for any necessary upgrades to the ESPs due to the increased loading from the DSI system or the potential costs due to local retrofit constraints.²⁵ Allowing time for permit approvals, engineering, construction, and installation, and assuming that DSI could be fully operational by the end of 2017 under an expeditious schedule, DSI would be in operation for approximately three years before the units would be shut down at the end of 2020. At an expected control efficiency of 50 percent, EPA estimates that the annual SO₂ reduction

²⁴ EPA notes that although two Commenters submitted comments on the state rulemaking for this BART determination, neither identified DSI as an option for FDEP to consider in its BART analysis.

²⁵ IPM Model –Revisions to Cost and Performance for APC Technologies, Dry Sorbent Injection Cost Development Methodology, Sargent & Lundy LLC, August 2010. http://www.epa.gov/airmarkets/progsregs/epa-ipm/docs/append5_4.pdf.

would be 4,644 tons from Unit 1 and 5,912 tons from Unit 2 at a cost-effectiveness of \$6,897/ton and \$6,943/ton of SO₂ removed, respectively.²⁶ EPA also evaluated the cost-effectiveness of operating DSI for five years rather than three, but still found that the cost-effectiveness values would exceed \$6,000/ton. Therefore, EPA concurs with FDEP's SO₂ BART determination for Crystal River because the cost-effectiveness of DSI is higher than what EPA or Florida has considered to be BART in other BART determinations selecting DSI.

Comment 22: The Commenter does not believe that EPA can approve Option 2 of the Crystal River BART determination because of alleged inadequacies in the BART analyses that resulted in BART determinations for SO₂, PM, and NO_x with emissions limits that were less stringent than the Commenter considered appropriate as BART for this facility.

Response 22: On May 2, 2013, FDEP supplemented Florida's regional haze SIP with an April 30, 2013, letter from Duke Energy (formerly known as Progress Energy) notifying FDEP of the Company's binding decision to pursue Option 1 under the Crystal River BART construction permit and shut down Units 1 and 2 by December 31, 2020. Pursuant to the construction permit, which was incorporated into Florida's regional haze SIP, Duke Energy's binding determination renders Option 2 and the corresponding permit provisions allowing for the implementation of Option 2 void. Today's final action approving Florida's regional haze SIP makes this shutdown requirement federally enforceable. Hence, EPA regards any comments on Option 2 to be moot.

²⁶ To view EPA's calculations to support these figures, please refer to "Crystal River DSI Cost Analysis" in the docket for this action.

Comment 23: The Commenter recommends that selective non-catalytic reduction (SNCR) be re-evaluated as an interim control under Option 1 based on its contention that the technology can be installed in much less than five years, thus improving its cost-effectiveness by increasing its useful life.

Response 23: EPA does not believe that SNCR would be cost-effective as an interim control on Units 1 and 2 given the remaining useful life of this facility. Although EPA disagrees with FDEP's conclusion that SNCR is not a demonstrated technology for boilers of this size, it does concur with FDEP that detailed engineering and site-specific assessments would be necessary to design and install SNCR given the nature of the units and that these assessments could take substantial additional time to complete. Compared with smaller coal-fired boilers, the engineering design for Units 1 and 2 would require consideration of the limited access to temperature regions in the boiler, greater variations in combustion temperatures, longer distances over which reagent must be delivered and mixed, and increased ammonia slip due to less optimal use of reagent. Even if FDEP had evaluated SNCR as an interim measure and determined that SNCR was technically feasible, this facility would likely have had until mid-2018 under the Florida BART rule²⁷ to begin operating a SNCR system, which would then have ceased operation by no later than 2020 when the facility shut down. Thus, the limited remaining useful life of this facility makes the application of SNCR as an interim control option not practicable for Units 1 and 2.

²⁷ Florida Admin. Code 62-296.340, "Best Available Retrofit Technology."

Comment 24: The Commenter does not believe that EPA can approve Florida's regional haze SIP until FDEP considers the visibility impacts of Crystal River's NO_x emissions on Class I areas other than Chassahowitzka, the nearest Class I area.

Response 24: No further visibility analysis is required for Crystal River because Duke Energy must now shut down Units 1 and 2 by December 31, 2020. EPA agrees that Florida should have considered the visibility improvements at all affected Class I areas in its BART visibility assessments under Option 1; however, EPA does not believe that doing so would have altered the outcome given the limited remaining useful life of the facility.

Lakeland Electric C.D. McIntosh Jr.

Comment 25: The Commenter believes that the visibility modeling for Lakeland Electric's C.D. McIntosh Jr. (McIntosh) facility should have considered cumulative visibility impacts from Everglades National Park, Okefenokee, and Chassahowitzka.

Response 25: As a general matter, EPA agrees that Florida should have considered the visibility improvements at all affected Class I areas in its BART visibility assessments. For the McIntosh BART analysis, Florida modeled visibility impacts at Chassahowitzka, the nearest Class I area to the facility, as well as at Everglades National Park and Okefenokee, the other mandatory Class I Federal areas within the surrounding 300 km CALPUFF modeling domain used by FDEP. FDEP conducted the visibility modeling consistent with the modeling protocol that VISTAS developed for preparing BART analyses entitled *Protocol for the Application of the CALPUFF Model for Analyses of Best Available Retrofit Technology (BART)*. (See appendix L of the

Florida regional haze SIP submittal.) This modeling protocol was developed in a transparent manner involving states, EPA, NPS, FWS, and any other interested entities that wished to participate in the public process. The protocol establishes 300 km as the boundary around a BART-subject source in which to model potential visibility impacts at Class I areas, and consistent with this protocol, FDEP modeled the highest visibility impact from the three Class I areas within a 300 km radius of the source.

While FDEP should have considered the visibility improvement at Everglades and Okefenokee when conducting its BART analyses for McIntosh, EPA does not believe that FDEP not doing so has rendered its BART determinations unreasonable. As discussed in more detail in the responses below, FDEP rejected several SO₂ BART options based on excessive cost, not visibility improvement. Moreover, while FDEP did eliminate several NO_x BART options based on low visibility improvement, those values were so low that EPA does not believe that a consideration of cumulative impacts would alter the reasonableness of FDEP's conclusions, especially in light of the fact that the baseline visibility impacts for the 98th percentile most impacted day at Everglades and Okefenokee were only 31 percent and 27 percent, respectively, of those at Chassahowitzka.

Comment 26: EPA received several comments regarding the adequacy of the NO_x BART analysis for Units 1 and 2 at McIntosh. According to the Commenter, EPA cannot approve the BART determination without: (1) fully evaluating SNCR as a retrofit technology for Unit 2; (2) considering additional available retrofit control technologies such as low NO_x burners, overfire air systems, and flue gas recirculation for Unit 1; (3) setting a NO_x emissions limit for Unit 1; (4) demonstrating why a selective catalytic reduction (SCR) control efficiency greater than 80

percent is not achievable; and (5) calculating the cost-effectiveness of SCR for each individual unit. The Commenter also states that even the incorrect cost-effectiveness values calculated for SCR fall within the range of acceptable values and that SCR should therefore have been selected as BART.

Response 26: Regarding a SNCR evaluation for Unit 2, this unit already has combustion controls in place (flue gas recirculation), lowering its worst case 24-hour NOx emission rate²⁸ to approximately 0.22 lb/MMBtu, comparable to what can be achieved with SNCR for this unit. In addition, the technical feasibility of installing SNCR on these units is uncertain because an engineering study would need to be undertaken to ascertain whether the units operate within the temperature range required by SNCR.

With regard to the Commenter's remaining concerns for Units 1 and 2, the BART modeling for Units 1 and 2 predicted a total visibility impact of 0.31 dv at Chassowitzka from their combined NOx emissions and a visibility impact of approximately 0.20 dv from the NOx emissions at Unit 1.²⁹ Moreover, EPA reviewed the operations of Unit 1 and concluded that the modeling based on 2001 to 2003 emissions was sufficiently conservative compared to present operations. Unit 1 emitted a total of 12.3 tons of NOx from 2009 through 2012, according to EPA's CAMD database, whereas the baseline BART modeling assumed that Unit 1 emitted 2,119 tons of NOx per year.

²⁸ This emissions rate reflects the maximum daily actual emissions from 2001-2003 for Unit 2 used in Florida's CALPUFF modeling.

²⁹ The BART modeling estimates the maximum eighth highest visibility impact at Chassahowitzka from the emissions from these units over the baseline period to be 1.617 dv with a NOx contribution of approximately 0.31 dv. See Exhibit 2 of the Florida regional haze submittal, page 416. Unit 1 contributes approximately two-thirds of the total NOx emissions from these units. See Exhibit 2 of the Florida regional haze submittal, page 415.

FDEP placed greater weight on the lack of potential visibility improvement from controlling NO_x at Units 1 and 2 than the other statutory factors due to the modeling results described above and concluded that no additional controls were required to satisfy NO_x BART and that no adjustment to the existing permits were warranted. Furthermore, because the available controls (low NO_x burners, flue gas recirculation, and SNCR) for Unit 1 would only reduce the visibility impacts by 25 to 50 percent, the anticipated improvement from these controls would be as low as 0.05 to 0.1 dv assuming 2001-2003 emission levels. Under the same logic, adjusting the control efficiency of the modeled SCR system from 80 to 90 percent or calculating the cost-effectiveness individually for each unit would not change the fact that the visibility improvement associated with the installation of NO_x controls would remain low.

Regarding a NO_x BART emissions limit for Unit 1, the RHR does require an emissions limit for each visibility-impairing pollutant at each BART-subject source. FDEP submitted a letter to EPA dated July 30, 2013, in which it committed to provide EPA with a regional haze SIP revision no later than March 19, 2015, the deadline for the State's five-year regional haze periodic progress report, that will include a NO_x BART emissions limit for Unit 1 reflecting best operating practices for good combustion. The State also committed to modify the title V operating permit for the facility by March 19, 2015, to include this limit. The limit will be effective no later than the effective date of EPA's approval of the SIP revision. Because of the limited visibility impact of NO_x emissions from Unit 1 and because the BART limit will reflect the existing level of control, EPA concludes that it is reasonable for the State to implement a NO_x BART emissions limit for Unit 1 upon EPA's approval of the aforementioned SIP revision. Under these unique circumstances, EPA concludes that FDEP's NO_x BART determination for the McIntosh facility was ultimately reasonable. The major visibility-impairing pollutant of

concern at this source, SO₂, has been addressed, and the delay in establishing a NO_x BART emissions limit for Unit 1 will have no appreciable impact on visibility at any Class I area.

Comment 27: The Commenter alleges that FDEP overestimated the costs and underestimated the visibility benefits of reducing fuel oil sulfur content in its SO₂ BART analysis for McIntosh and submitted an analysis evaluating the visibility benefits of reducing the fuel oil sulfur content and associated costs. According to the Commenter, FDEP should have included the visibility improvements at Everglades National Park and Okefenokee Wilderness Area associated with the 0.7 percent sulfur fuel evaluation and should not have used the 2001-2003 baseline period to estimate heat inputs and fuel costs.

Response 27: EPA disagrees with the Commenter. With respect to the information provided by the Commenter, EPA finds that the Commenter used different baselines to evaluate the costs and visibility benefits of a lower sulfur content fuel oil. Specifically, the Commenter based costs on lower 2009-2011 operating rates and fuel-use data, but evaluated visibility benefits based on a 2001-2003 baseline period with a much higher operating rate. This approach neglects to consider that less fuel use would result in less visibility impairment. Had the Commenter adjusted the visibility benefits to match 2009-2011 operating rates, the visibility benefits would have been much lower. Therefore, the Commenter's \$/dv estimates are artificially low. Consistent with the State's BART modeling protocol, FDEP's visibility modeling was appropriately based on a 2001-2003 baseline for estimates of both visibility impacts and fuel consumption, assuring that higher visibility impacts from the higher level of fuel utilization in that period were properly considered. FDEP then based total costs on the latest estimates of fuel

costs assuming baseline year consumption. Finally, while FDEP should have considered cumulative visibility impacts in assessing the 0.7 percent sulfur fuel oil option, it is ultimately of no consequence because FDEP selected this option as BART for both Units 1 and 2.

Comment 28: The Commenter states that FDEP should not have eliminated DSI as SO₂ BART for McIntosh because “the space required for DSI is minimal, as is the capital cost.”

Response 28: EPA notes that DSI requires an adequate PM control device to collect the sulfate particles generated by the sorbent injection system. Currently, there are no add-on particulate controls on the oil-fired units at McIntosh. Installation of DSI would therefore require installation of a fabric filter system or ESP to capture the sulfate particles generated. The expense of adding a new particulate control system in addition to DSI itself would have made this control option not cost-effective for Units 1 and 2 at McIntosh.

Comment 29: The Commenter believes that FDEP also should have evaluated the firing of 0.3 percent sulfur fuel oil, 0.5 percent sulfur fuel oil, distillate, and Ultra Low Sulfur Diesel (ULSD) in its SO₂ BART analysis for McIntosh.

Response 29: As is discussed in more detail in EPA’s response to Comment 14, the BART Guidelines do not require states to list all permutations of available control levels that exist for a given technology. FDEP evaluated switching from 0.7 percent sulfur fuel oil to 0.3 percent sulfur fuel oil in its BART analyses for several other facilities. In these other instances, FDEP presented the cost-effectiveness of switching to 0.7 percent and 0.3 percent sulfur fuel oils,

which are the commonly-available grades of residual fuel oil. The use of 0.5 percent sulfur fuel oil would require a blending of these two fuel oils, and its cost-effectiveness can be interpolated from the information provided. Distillate and ULSD would be substantially more expensive than 0.3 percent sulfur fuel oil, which FDEP had already determined was not cost-effective. FDEP did not re-perform this analysis for Units 1 and 2 at McIntosh because distillate oil and ULSD were found to not be cost-effective in the BART analyses for other facilities. EPA does not believe that an explicit evaluation of these additional fuels for McIntosh would have resulted in a different conclusion because the analysis is dependent on fuel cost, and fuel cost is approximately uniform among the facilities evaluated by FDEP given that the suppliers of fuel oil in Florida that service the other EGUs are the same as those that supply Lakeland Electric, including the McIntosh facility.

FPL Manatee

Comment 30: The Commenter believes that FDEP also should have considered 0.5 percent sulfur fuel oil, distillate, and ULSD fuel oils in the SO₂ BART analysis for FPL Manatee (Manatee).

Response 30: See response to Comment 29. The same rationale for not assessing additional fuels at McIntosh also applies to Manatee.

Comment 31: The Commenter alleges that FDEP overestimated the costs and underestimated the visibility benefits of reducing fuel oil sulfur content in evaluating SO₂ BART options. According to the Commenter, FDEP should have included the cumulative visibility

improvements at Everglades National Park and Chassahowitzka Wilderness Area associated with the fuel switching options and should have used a 2009-2011 baseline period to estimate heat inputs and fuel costs rather than the 2001-2003 period chosen by FDEP. The Commenter contends that 0.3 percent sulfur fuel oil is SO₂ BART because FDEP overestimated the cost of switching to this fuel oil by not considering that the use of fuel oil is “likely to continue to decrease in favor of gas.”

Response 31: In regards to the comments on cost estimates and the correct baseline period, see the response to Comment 27. In regards to the comment on cumulative visibility benefits, while EPA agrees that Florida should have considered the visibility improvements at all affected Class I areas in its BART visibility assessments, EPA does not believe that doing so would have altered the outcome here. For the Manatee BART analysis, Florida modeled visibility impacts at the Chassahowitzka National Wildlife Area as well as at Everglades National Park, the only other mandatory Class I Federal area within the surrounding 300 km CALPUFF modeling domain. For SO₂ BART, FDEP evaluated the costs and visibility benefits associated with switching from 1.0 percent sulfur fuel oil to 0.7 percent and 0.3 percent sulfur fuel oil. FDEP selected 0.7 percent sulfur fuel oil as BART at a cost-effectiveness of \$5,468/ton of SO₂ reduced and rejected 0.3 percent sulfur fuel oil at a cost-effectiveness of \$6,542/ton of SO₂ reduced. The incremental cost-effectiveness of lowering the sulfur level in fuel oil from 0.7 percent to 0.3 percent was \$7,348/ton of SO₂ reduced. The Commenter did not provide any data in support of its contention that the use of fuel oil is likely to continue to decrease in favor of gas such that a switch to 0.3 percent sulfur fuel oil would be more cost effective. EPA agrees with FDEP’s SO₂ BART determination and is not persuaded that, given the incremental cost-effectiveness of more stringent controls, consideration of cumulative visibility benefits or the Commenter’s

assumptions regarding trends in fuel oil usage would have resulted in a different BART determination for SO₂.

Comment 32: The Commenter argues that BART should be a fuel-specific determination and that EPA should not allow the source to blend a fuel oil with sulfur content higher than what is determined to be BART with natural gas. The Commenter believes that blending fuel oil with natural gas is not a legitimate offset because natural gas would be used anyway.

Response 32: EPA disagrees with the Commenter's view that BART needs to be a fuel-specific determination. Except in cases where work practices are delineated, BART is an emissions limit, not a specified technology.³⁰ Blending fuels to lower the emissions rate is an acceptable and cost-effective method to reduce emissions and their associated visibility impacts, and it is allowed by the EPA New Source Performance Standards (NSPS) subpart D rules for oil-fired boilers. The Commenter's statement that "natural gas would be used anyway" is not explained or supported.

Comment 33: The Commenter believes that FDEP should have evaluated additional combustion controls and SNCR in the NO_x BART analysis for Manatee and cites to units in EPA's CAMD database with lower NO_x emissions rates than the rate selected as NO_x BART.

Response 33: The Manatee units are currently equipped with multiple NO_x emissions control methods including: flue gas recirculation, overfire air systems, staged combustion, low NO_x burners, and re-burn. FDEP assessed SCR as a technically feasible post-combustion NO_x

³⁰ 40 CFR part 51 appendix Y, I.E.3.

control, but did not evaluate SNCR. For oil-fired units, the technical feasibility of SNCR is uncertain because SNCR depends on the availability of an accessible location within the furnace with relatively high temperatures where injectors could be installed. To determine whether such a location existed in these units would have required a detailed engineering analysis because oil-fired boilers typically operate at lower peak temperatures than coal-fired boilers. While the BART Guidelines ordinarily require states to make a reasoned determination that a widely available control technology, such as SNCR, is technically infeasible before rejecting it, EPA does not believe that SCR would be BART for NO_x at Manatee. Six to 17 percent of the 98th percentile visibility impact at the Chassahowitzka Wilderness Area from 2001- 2003 was attributable to NO_x emissions from Manatee. FDEP evaluated SCR operating at 90 percent efficiency as part of its BART analysis for Manatee and determined that this control technology would improve visibility by 0.47 dv at a cost of \$3,776/ton of NO_x reduced, or approximately \$66 million/dv. The likely visibility improvement from SNCR, if it were feasible for these oil-fired units, would range from 0.1 dv to 0.2 dv (assuming a 25 to 40 percent reduction potentially achievable with the use of SNCR). EPA concludes that, in light of the visibility improvement predicted for a highly efficient SCR, that a more thorough evaluation of a less effective technology would not have changed the State's BART determination.

FPL Martin Power Plant

Comment 34: The Commenter believes that FDEP also should have considered 0.5 percent sulfur fuel oil, distillate, and ULSD fuel oils in the SO₂ BART analysis for FPL Martin Power Plant (Martin).

Response 34: See the response to Comment 29.

Comment 35: The Commenter contends that FDEP inappropriately dismissed FGD systems from consideration as BART because, according to the Commenter, FGD systems are “feasible and in use on oil-fired boilers” even though these systems “are seldom used on oil-fired boilers because it is more cost-effective to reduce fuel sulfur content.”

Response 35: According to the BART Guidelines, “[a]vailable retrofit control options are those air pollution control technologies with a practical potential for application to the emissions unit and the regulated pollutant under evaluation.”³¹ Based on a review of EPA’s Reasonably Available Control Technology/ Best Available Control Technology/ Lowest Achievable Emissions Rate (RACT/BACT/LAER) Clearinghouse,³² EPA is not aware of any oil-fired utility boilers currently equipped with a FGD system. As noted by the Commenter, oil-fired utility boilers that need to reduce SO₂ emissions typically rely on lower sulfur fuel oil where the desulfurization is conducted at the refinery rather than after combustion in the utility boiler. Thus, EPA believes that the State’s decision not to include FGD in the BART analysis for this facility was reasonable and consistent with the BART Guidelines.

Comment 36: The Commenter alleges that FDEP overestimated the costs and underestimated the visibility benefits of reducing fuel oil sulfur content in evaluating SO₂ BART options. According to the Commenter, FDEP should have included the cumulative visibility improvements at Everglades National Park and Chassahowitzka Wilderness Area associated with

³¹ 40 CFR part 51 appendix Y, IV.D.1.

³² <http://cfpub.epa.gov/RBLC/>.

the fuel switching options and should have used a 2009-2011 baseline period to estimate heat inputs and fuel costs rather than the 2001-2003 period chosen by FDEP.

Response 36: In regards to the comments on cost estimates and the correct baseline period, see the response to Comment 27. In regards to the comment on cumulative visibility benefits, while EPA agrees that Florida should have considered the visibility improvements at all affected Class I areas in its BART visibility assessments, EPA does not think doing so would have altered the outcome here. For the Martin BART analysis, Florida modeled visibility impacts at the Chassahowitzka Wilderness Area as well as at Everglades National Park, the only other mandatory Class I Federal area within the surrounding 300 km CALPUFF modeling domain. For SO₂ BART, FDEP evaluated the costs and visibility benefits associated with switching from 0.7 percent sulfur fuel oil to 0.3 percent sulfur fuel oil. FDEP rejected 0.3 percent sulfur fuel oil at a cost-effectiveness of \$7,348/ton of SO₂ reduced. Similarly, for NO_x BART, FDEP evaluated the costs and visibility benefits associated with the installation of SCR. FDEP rejected SCR at a cost-effectiveness of \$5,323/ton of NO_x reduced, with a visibility improvement at Chassahowitzka of just 0.15 dv. EPA agrees with FDEP's SO₂ and NO_x BART determinations and is not persuaded, given the cost-effectiveness values associated with more stringent controls, that consideration of cumulative visibility benefits would have resulted in a different BART determination for SO₂.

Comment 37: The Commenter believes that FDEP should have evaluated additional combustion controls and SNCR in the NO_x BART analysis and cites to units in EPA's CAMD database with lower NO_x emissions rates than the rate selected as NO_x BART.

Response 37: See the response to Comment 33. The Martin units, like the Manatee units, are currently equipped with multiple NO_x emissions control methods including flue gas recirculation, overfire air systems, staged combustion, and low NO_x burners. FDEP assessed SCR as a technically feasible post-combustion NO_x control, but did not evaluate SNCR. For oil-fired units, the technical feasibility of SNCR is uncertain because SNCR depends on the availability of an accessible location within the furnace with relatively high temperatures where injectors could be installed. To determine whether such a location existed in these units would have required a detailed engineering analysis because oil-fired boilers typically operate at lower peak temperatures than coal-fired boilers. While the BART Guidelines ordinarily require states to make a reasoned determination that a widely available control technology, such as SNCR, is technically infeasible before rejecting it, EPA does not believe that SCR would be BART for NO_x at Martin. Six to seven percent of the 98th percentile visibility impact at the Chassahowitzka Wilderness Area from 2001 - 2003 was attributable to NO_x emissions from Martin. FDEP evaluated SCR operating at 90 percent efficiency as part of its BART analysis for Martin and determined that this control technology would improve visibility by 0.15 dv at a cost of \$5,323/ per ton of NO_x reduced. Therefore, the likely visibility improvement from SNCR, if it were feasible for these oil-fired units, would be less than 0.1 dv (assuming a 25 to 40 percent reduction achievable with the use of SNCR). EPA concludes that, in light of the visibility improvement predicted for a highly efficient SCR, that a more thorough evaluation of a less effective technology would not have changed the State's BART determination.

Comment 38: The Commenter states that FDEP's PM BART analysis should have considered the increase in PM emissions resulting from the re-injection of fly ash into the boiler and that

FDEP “should prohibit the reinjection of fly ash to provide an economical interim reduction in PM₁₀ emissions.”

Response 38: EPA disagrees that FDEP should have considered the elimination or restriction of fly ash reinjection in its PM BART analysis. EPA has no data on the impacts of fly ash re-injection on oil-fired utility boilers and no basis to determine whether prohibiting fly ash re-injection would improve visibility because of the low particulate load of the flue gas emitted from oil-fired boilers. Although restricting fly ash re-injection is not an emissions control technology in the conventional sense, EPA believes that the BART Guidelines’ instructions on technical feasibility are instructive. Under the BART Guidelines, a control technology is technically feasible if it is “available” (i.e., if a source owner may obtain it through commercial channels or it is otherwise available within the common sense meaning of the term) and “applicable” (i.e., it can reasonably be installed and operated on the source at issue).³³ An applicability evaluation generally involves consideration of gas stream characteristics, the capabilities of the technology, and unresolvable technical difficulties. Operators of certain coal-fired boilers re-inject fly ash for the purpose of energy conservation, not emissions control. Coal-fired boilers generate substantially greater amounts of ash and have particulate control technologies with different characteristics than oil-fired boilers. Although fly ash re-injection has been prohibited for certain coal-fired boilers, there is no evidence that this methodology has been used for oil-fired boilers and no evidence that the gas streams are similar enough such that the process would be applicable as a PM emissions control technique for oil-fired boilers. For these reasons, EPA believes that the Commenter’s extrapolation of a control technique from coal-fired to oil-fired boilers is not appropriate in this instance.

³³ 40 CFR part 51 appendix Y, IV.D.2.

FPL Turkey Point Power Plant

Comment 39: The Commenter believes that FDEP also should have considered 0.5 percent sulfur fuel oil, distillate, and ULSD fuel oils in the SO₂ BART analysis and 0.3 percent sulfur fuel oil, 0.5 percent sulfur fuel oil, distillate, and ULSD fuel oils in the PM BART analysis for FPL Turkey Point Power Plant (Turkey Point).

Response 39: Regarding SO₂ BART, see the response to Comment 29. With regard to PM BART, Unit 2 is shutting down and Unit 1 has a PM emissions limit of 0.07 lb/MMBtu and is limited under BART to operating at no more than 25 percent of capacity on fuel oil with the remainder of operations on natural gas. This limit will result in an emissions reduction of over 80 percent from the baseline emissions from Units 1 and 2 combined. EPA believes that, in light of these conditions and because the baseline PM contribution from this facility is approximately 0.1 dv, any additional PM measures would result in negligible visibility improvement.

Comment 40: The Commenter alleges that FDEP overestimated the costs and underestimated the visibility benefits of reducing fuel oil sulfur content in evaluating SO₂ BART options.

According to the Commenter, FDEP should have used a 2009-2011 baseline period to estimate heat inputs and fuel costs rather than the 2001-2003 period chosen by FDEP. The Commenter also believes that it is inconsistent for FDEP to conclude that 0.7 percent sulfur fuel oil is feasible at \$19,197/ton but that 0.3 percent sulfur fuel oil is not feasible at \$16,044/ton and to conclude that its SO₂ BART determination will produce a significant visibility improvement of 0.6 dv while “dismiss[ing] 2.5 deciview and 1.5 deciview incremental improvements as ‘extremely small.’”

Response 40: In regards to the comments on cost estimates and the correct baseline period, see the response to Comment 27. Regarding the alleged inconsistency in cost-effectiveness, FDEP did not rely on this factor for its SO₂ BART determination for Turkey Point. As part of an alternative PM emissions reduction strategy, FDEP approved the use of 0.7 percent low sulfur fuel oil, a reduction in the PM emissions limit to 0.07 lb/MMBtu, and a limitation on the use of fuel oil equivalent to a capacity factor of 25 percent. For SO₂ BART, FDEP evaluated wet and dry FGD, 0.7 percent sulfur fuel oil, and 0.3 percent sulfur fuel oil. Despite the high cost-effectiveness of 0.7 percent sulfur fuel oil, FDEP determined that it was SO₂ BART due to the fact that the fuel also satisfied the PM BART requirement.

Comment 41: The Commenter believes that FDEP should have evaluated additional combustion controls and SNCR in the NO_x BART analysis for Turkey Point and cites to units in the CAMD database with lower NO_x emissions rates than the rate selected as NO_x BART.

Response 41: No further analysis was necessary for Turkey Point Unit 2 because there is a federally enforceable requirement to shut down the unit as expeditiously as practicable, but no later than December 31, 2013. Unit 1 currently employs low NO_x burners that reduce NO_x formation in the combustion zone. For NO_x BART, FDEP evaluated SNCR and SCR as potential post-combustion controls. Baseline visibility modeling for Turkey Point showed that nitrates contributed less than three percent of the visibility impairment associated with the emissions from both Units 1 and 2 at this facility. In light of these minimal visibility impacts, FDEP determined that additional NO_x reductions from Unit 1 were not required, and maintained the existing NO_x emissions limit of 0.40 lb/MMBtu when firing natural gas and 0.53 lb/MMBtu

when firing fuel oil, with continuous emissions monitoring and a 30-day rolling average based on a state rule, 62-296.570 F.A.C., for NO_x reasonably available control technology. EPA concludes that FDEP's conclusions were reasonable.

Comment 42: The Commenter states that FDEP's PM BART analysis should have considered the increase in PM emissions resulting from the re-injection of fly ash into the boiler and that FDEP should have included the elimination of fly ash re-injection in its PM BART analysis.

Response 42: See the response to Comment 38.

JEA Northside

Comment 43: The Commenter alleges that JEA Northside had the lowest \$/ton fuel switching option rejected by FDEP and that FDEP did not explain why it rejected this option or why it did not evaluate a more comprehensive switch to lower sulfur fuels. The Commenter contends that FDEP should explain why a switch from 1.0 percent to 0.7 percent sulfur fuel oil is not cost-effective at JEA Northside when it is cost-effective at Manatee.

Response 43: FDEP's cost-effectiveness estimate for converting from 1.8 to 1.0 percent sulfur fuel oil was \$7,184/ton of SO₂ reduced. FDEP also estimated that the conversion would cost \$31.1 million/dv. EPA concurs that these high cost-effectiveness values provide sufficient justification for FDEP's decision to reject 1.0 percent sulfur fuel oil as SO₂ BART for this facility. In its BART analyses for other oil-fired units, FDEP presented the cost-effectiveness of switching to 0.7 percent and 0.3 percent sulfur fuel oils, which are the commonly available

grades of residual fuel oil. FDEP did not extend the analysis to JEA Northside because it was found not to be cost-effective in the BART analyses for other facilities. EPA does not believe that an explicit evaluation of these additional fuels for JEA Northside would have resulted in a different conclusion because the analysis is dependent on fuel cost, a cost that is approximately uniform among the facilities evaluated by FDEP given that the suppliers of fuel oil in Florida that service the other facilities are the same as those that supply JEA Northside.

Comment 44: The Commenter states that FDEP did not justify the use of an 80 percent control efficiency assumption for SCR and that any additional energy costs associated with the control should have been included in the cost analysis and not “double-counted.” The Commenter also states that the ammonia issues identified by FDEP are common to all SCR systems and can be addressed by good operating procedures.

Response 44: FDEP included an evaluation of the energy and non-air quality impacts associated with SCR for completeness because these impacts are, collectively, one of the five statutory factors to be considered in a BART determination. The improvement in visibility at Okefenokee associated with the installation of an SCR operating at 80 percent efficiency and Unit 3 operating at a maximum permitted capacity of 28 percent was estimated to be 0.26 dv. A SCR operating at 90 percent efficiency would improve this estimate by roughly 0.03 dv. EPA believes that the limited visibility improvement that would result from adjusting the control efficiency of SCR to 90 percent would not have changed FDEP’s conclusion that SCR is not warranted as BART at JEA Northside.

Visibility Metrics

Comment 45: The Commenter alleges that FDEP was inconsistent in its approach to evaluating dollars per dv values, citing the \$11.3 million (M)/dv value associated with SO₂ BART for McIntosh and the \$17.7M/dv value associated with SNCR at Crystal River (a control not selected as NO_x BART at the facility). The Commenter also states that FDEP's conclusions regarding \$/dv values are not consistent with those across the country. The Commenter further states that FDEP does not explain why it determined that upgrading to FGD at McIntosh and adding FGD at Lansing Smith are not reasonable when the cost-effectiveness values associated with those controls are lower than the \$6,542/ton cost-effectiveness value associated with SO₂ BART at Manatee.

Response 45: FDEP evaluated BART on a case-by-case basis using facility-specific conditions. Thus, it is to be expected that the resulting BART determinations may appear to be inconsistent when compared using a single metric. For example, at Manatee, FDEP determined that equivalent visibility improvements to those that can be achieved by switching to 0.7 percent sulfur fuel oil could be achieved by removing the current prohibition on blending and co-firing 1.0 percent sulfur fuel oil with natural gas and by lowering the allowable emissions limit to 0.8 lb/MMBtu (12-month rolling average). The estimate of \$6,542/ton for SO₂ controls is based on using lower sulfur fuel oil only for compliance, and the blending and co-firing option is expected to be less expensive in practice. By comparison, at Lansing Smith, the limited incremental visibility improvement (0.07–0.09 dv) from installing a FGD was weighed heavily in FDEP's BART determination even though FDEP concluded the cost-effectiveness values would have been reasonable had there been greater visibility improvement.

Comment 46: The Commenter is concerned that the proposed source-specific BART and reasonable progress emissions limits for the Florida EGUs subject to CAIR would allow emissions to increase compared to 2011 actual emissions.

Response 46: EPA does not consider the situation presented by the Commenter to be a realistic future scenario. The Commenter assumes that the present use of natural gas at oil/gas units will be replaced with the use of residual fuel oil at the levels used in 2001-2003. The Commenter's concern that emissions may increase are based on the assumption that three oil-fired Florida EGUs (Martin, Manatee, and Turkey Point) could revert to firing residual oil rather than the current use of natural gas. EPA does not consider reversion to oil-firing at these units to be a plausible scenario for the first implementation period. FDEP relied on the VISTAS IPM projections to project 2018 emissions that consider, among other factors, the expected price of oil and gas in the projection year to estimate facility utilization. As noted in the Florida regional haze SIP narrative, these projections are conservative because several of the units have either shut down or repowered to gas entirely, making the scenario of reverting to firing residual oil even more unlikely and resulting in even lower emissions levels in 2011 than predicted for 2018.

Use of Interpolative Methods

Comment 47: The Commenter states that EPA cannot approve the BART determinations for Crystal River, McIntosh, and JEA Northside because FDEP relied on "rough calculations 'instead of modeling' to determine visibility impacts under step 5 of the BART analysis."

Response 47: EPA has reviewed the visibility impact calculation procedures for the BART determinations identified by the Commenter. While the calculations were not performed in accordance with the BART Guidelines, EPA agrees with FDEP that they are acceptable in this instance. The methodology used for these facilities to estimate visibility impacts relied on a simplifying assumption that the visibility impacts would be reduced in direct proportion to the reduction in emissions of individual visibility-impairing pollutants. Based on the results of other BART determinations where emissions reductions have been modeled with CALPUFF, the direct relationship assumption would likely overestimate reductions in visibility impacts as opposed to understating them. EPA acknowledges that unlike a Gaussian plume model, such as AERMOD, there is not a direct linear relationship between emissions and calculated visibility impacts when using the CALPUFF modeling system. However, CALPUFF's calculation of visibility impacts has been termed "quasi-linear" in EPA's Guideline on Air Quality Models.³⁴ Therefore, an assumption of a linear response to changes in emissions is a reasonable estimation and the simplified methodology used for these BART determinations likely provides conservative overestimates of visibility impact reductions.

Comment 48: The Commenter states that it would be unlawful and arbitrary for EPA to fully approve Florida's regional haze SIP because it "improperly relies on the illegal [CAIR] for inventories and projections from upwind states, which in turn form the basis for Florida's [RPGs] and its entire reasonable progress strategy." According to the Commenter, the State's RPGs also include assumptions based on Florida's SO₂ emissions under CAIR and there is no guarantee that CAIR's eventual replacement rule will cover SO₂ emissions and achieve the emissions reductions predicted under CAIR. The Commenter also contends that it is not

³⁴ 40 CFR part 51, appendix W.

appropriate for EPA to wait until the five-year progress report to update these RPGs based on updated information; that states which have failed to update their SIPs to remove reliance on CAIR do not have a “reliance interest” in CAIR; and that Florida must revise its Q/d reasonable progress exemption threshold because it was selected based on Florida’s projected progress toward natural visibility conditions that relied on CAIR. The Commenter believes that it is factually and legally incorrect for EPA to state that the emissions reductions associated with CAIR will be sufficiently permanent and enforceable for the necessary time period when “CAIR has been struck down” and EPA has “disapproved reliance on CAIR for regional haze purposes.”

Response 48: With regard to CAIR, see the response to Comment 1. With regard to Q/d, see the response to Comment 6. Regarding the regional haze SIP disapproval actions cited by the Commenter, EPA took all of these actions before the D.C. Circuit ruling in *EME Homer City*. Since that decision, EPA has stated its belief that it would be appropriate to rescind the limited disapproval actions for those regional haze SIPs that relied on CAIR should *EME Homer City* be upheld. *See, e.g.*, 78 FR 11805, 11807 (Feb. 20, 2013).

IV. Final Action

EPA is finalizing a full approval of all remaining portions of Florida’s regional haze SIP. EPA also finds that the entire Florida regional haze SIP now meets the applicable regional haze requirements as set forth in sections 169A and 169B of the CAA and in 40 CFR 51.300–51.308.

V. Statutory and Executive Order Reviews

Under the CAA, the Administrator is required to approve a SIP submission that complies with the provisions of the Act and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by State law. For that reason, this action:

- is not a “significant regulatory action” subject to review by the Office of Management and Budget under Executive Order 12866 (58 FR 51735, October 4, 1993);
- does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);
- is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);

- is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, this rule does not have tribal implications as specified by Executive Order 13175 (65 FR 67249, November 9, 2000), because the SIP is not approved to apply in Indian country, and EPA notes that it will not impose substantial direct costs on tribal governments or preempt tribal law.

The Congressional Review Act, 5 U.S.C. 801 *et seq.*, as added by the Small Business Regulatory Enforcement Fairness Act of 1996, generally provides that before a rule may take effect, the agency promulgating the rule must submit a rule report, which includes a copy of the rule, to each House of the Congress and to the Comptroller General of the United States. EPA will submit a report containing this action and other required information to the U.S. Senate, the U.S. House of Representatives, and the Comptroller General of the United States prior to publication of the rule in the Federal Register. A major rule cannot take effect until 60 days after it is published in the Federal Register. This action is not a “major rule” as defined by 5 U.S.C. 804(2).

Under section 307(b)(1) of the CAA, petitions for judicial review of this action must be filed in the United States Court of Appeals for the appropriate circuit by [FEDERAL REGISTER OFFICE: insert date 60 days from date of publication of this document in the Federal Register]. Filing a petition for reconsideration by the Administrator of this final rule does not affect the

finality of this action for the purposes of judicial review nor does it extend the time within which a petition for judicial review may be filed, and shall not postpone the effectiveness of such rule or action. This action may not be challenged later in proceedings to enforce its requirements. *See* section 307(b)(2).

List of Subjects in 40 CFR Part 52

Environmental protection, Air pollution control, Incorporation by reference, Intergovernmental relations, Nitrogen dioxide, Particulate matter, Reporting and recordkeeping requirements, Sulfur oxides, Volatile organic compounds.

Dated: August 14, 2013.

A. Stanley Meiburg,
Acting Regional Administrator,
Region 4.

40 CFR part 52 is amended as follows:

PART 52--APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS

1. The authority citation for part 52 continues to read as follows:

Authority: 42 U.S.C. 7401 *et seq.*

Subpart K—Florida

2. Section 52.520 is amended:

a. In paragraph (c) by adding one new entry in numerical order under Chapter 62-296 Stationary Sources—Emissions Standards for “62-296.340”;

b. In paragraph (e) by adding five new entries for “Initial Regional Haze Plan,” “Regional Haze Plan Amendment 1,” “Regional Haze Plan Amendment 2,” “Progress Energy Permit (Air Permit No. 0170004-038-AC),” and “Update to October 15, 2013, Progress Energy Permit (Air Permit No. 0170004-038-AC)” at the end of the table to read as follows:

§52.520 Identification of plan.

* * * *

(c) * * *

EPA-Approved Florida Regulations

State citation (Section)	Title/subject	State effective date	EPA approval date	Explanation
**	**	*	*	*
Chapter 62-296 Stationary Sources—Emissions Standards				
**	**	*	*	*

62-296.340	Best Available Retrofit Technology	1/31/07	[Insert date of publication in <u>Federal Register</u>] [Insert citations of publication]	
**	**	*	*	*

(e) * * *

EPA-Approved Florida Non-Regulatory Provisions

Provision	State effective date	EPA approval date	Federal Register notice	Explanation
**	**	*	*	*
Initial Regional Haze Plan	3/19/10	[Insert date of publication in <u>Federal Register</u>]	[Insert citation of publication]	
Regional Haze Plan Amendment 1	8/31/10	[Insert date of publication in <u>Federal Register</u>]	[Insert citation of publication]	
Regional Haze Plan Amendment 2	9/17/12	[Insert date of publication in <u>Federal Register</u>]	[Insert citation of publication]	Remaining Portion of Regional Haze Plan Amendment not approved on November 29, 2012
Progress Energy Permit (Air Permit No. 0170004-038-AC)	10/15/12	[Insert date of publication in <u>Federal Register</u>]	[Insert citation of publication]	

Update to October 15, 2013, Progress Energy Permit (Air Permit No. 0170004-038- AC)	5/2/13	[Insert date of publication in <u>Federal Register</u>]	[Insert citation of publication]	

[FR Doc. 2013-21028 Filed 08/28/2013 at 8:45 am; Publication Date: 08/29/2013]